

THE HUMAN PROBLEM IN SCHOOLS

*A Psychological Study carried out on behalf of the
Girls' Public Day School Trust*

by

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PSYCHOLOGY, AND HOLDER OF A LAURA SPELMAN ROCKEFELLER MEMORIAL
FELLOWSHIP IN THE UNITED STATES OF AMERICA, 1927-1929)



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TO
THE STAFFS, GIRLS AND PARENTS
OF THE
G.P.D.S.T. SCHOOLS
WHOSE GENEROUS CO-OPERATION
MADE THIS EXPERIMENT POSSIBLE

I WISH to express my gratitude to the Council of the Girls' Public Day School Trust for the far-sighted way in which they have allowed this experiment to develop freely within their schools, and also to all those who have so generously helped with suggestions and criticisms; especially to Prof. Elton Mayo, Dr. May Smith, Prof. Hamley, and my husband for his continual help and advice; also to those others who very kindly read the manuscript and offered valuable suggestions, especially Miss D. L. Walker, Dr. Philippa Esdaile, and to Dr. Susan Isaacs, the editor of this series.

M. M.

FOREWORD

ONE of the most urgent questions in all our minds to-day is whether the spiritual fruits of civilization can be saved from the tremendous pressure of the disrupting forces arising from its material complexity. Can human beings stand the strain of the increasing complexity of social and economic relations? Is human nature itself equal to the top-heavy burden of learning and scientific technique?

Nowhere do these questions press more urgently than in the education of girls. The pioneers of women's education sought to lay open the whole field of knowledge and experience. They have almost completely won their battle. Girls with high intellectual equipment and favoured circumstances can go almost wherever they will. But do we yet fully understand how to help those who are not born to be first-class scholars, the majority of girls, to make full use of their opportunities for learning so as to deepen and enrich their normal relationships in the family and the home and social life generally, to become not only better daughters, sisters and mothers, but better citizens, better persons? Do we even understand how to help the intellectually favoured few to reap the full fruits of their ability without impoverishing their personal life?

The invitation extended to Mrs. Milner by the Girls' Public Day School Trust to undertake the pioneer work described in this volume is itself an indication that these questions are stirring amongst those to whom we have to look for an answer. It showed that the deeper issues of the pupils' personal life are beginning to be appreciated. The Head Mistresses of the G.P.D.S.T. Schools have performed a very great service to girls' education as a whole by their courage and enterprise in raising the questions which led to Mrs. Milner's experiment, and by inviting a first-class psychologist to enter their sacred preserves and report upon

what she found. They have placed in their debt all who are concerned with the problems of mental development and of education in the life of adolescent girls.

Mrs. Milner first states how the experiment began, and the way in which the various problems offered her appeared to the staff on the one hand and the girls on the other. After describing the various techniques of observation and measurement which she found applicable she then comes to her major contribution: the function of the psychologist within the school and her various practical suggestions towards a solution of the problems which she discovered. Her modesty of claim is not able to obscure the proof which her work offers of the need for such psychological studies of girls' development and of the personal influence of the day school upon girls of varying abilities and temperament and home circumstances. Nor is her gentle and tentative mode of statement able to hide the depth and solidity and practical good sense of the actual suggestions she makes for giving more help to the girls in their social and personal development. The experiment is shown not only to have fully justified itself but to have demonstrated how crying the need is for a greater psychological understanding of girls in the school, how varied, how pertinent, how vital, the services which the psychologist can render both to the staff and to the pupils.

The book will be of immense interest and value, not alone to the twenty-five schools of the Trust, but to school-girls everywhere, and to teachers and parents in general. It is a privilege to include such a book in this series of *Contributions*.

SUSAN ISAACS

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SECTION I
FIRST STATEMENTS OF THE PROBLEMS

CHAPTER I

HOW THE EXPERIMENT BEGAN

I. THE PLAN AS OUTLINED BY THE HEAD MISTRESSES

THE Council of the Girls' Public Day School Trust, founded in England in 1872, publish the following general prospectus:

The twenty-five long-established Schools of the Trust provide a liberal education of the highest type. The Trust is the largest organization for providing higher education for Girls, its pupils numbering 9,400. Its Schools are staffed mainly with Mistresses of University education, and prepare Girls for cultivated and useful life at home, and for the Universities and Professions.

The SCHOOL COURSE includes Reading, Writing, Arithmetic, Mathematics, English Grammar, Composition and Literature, History, Geography, French, German, Latin, Greek, Science, Drawing, Class Singing and Ear Training, Physical Exercises, and Needlework. Religious Instruction is given in all the Schools, and Denominational Teaching when requested by Parents. Certain subjects, such as Pianoforte, Harmony, Violin, Solo Singing, Advanced Drawing, Remedial Gymnastics and Dancing, are *Extras*. As a rule there are *no compulsory subjects in the afternoon*. *Saturday is a whole holiday*.

There are PREPARATORY DEPARTMENTS for Girls and small Boys at all the Schools.

There are departments for the TRAINING OF TEACHERS (Post-Graduate, Kindergarten, Art, and Music) at Clapham and others of the Schools.

A BUSINESS TRAINING DEPARTMENT is attached to the Streatham Hill School.

There are courses of training in DOMESTIC SCIENCE subjects at many of the Schools.

There are BOARDING HOUSES, conducted or licensed by the Council, at many of the Schools.

HEALTH and PHYSICAL DEVELOPMENT are carefully

considered. There are Playing-fields with organized Games at all the Schools.

Various SCHOLARSHIPS and EXHIBITIONS are awarded (mainly to Senior Girls) at all the schools.

The SCHOOL YEAR is divided into three Terms, each of about Twelve Weeks.

The TUITION FEES for the School Course range from about £4 5s. to £11 11s. per Term, according to age and other circumstances. BOARDING HOUSE FEES (additional to the Tuition Fees) vary from about £70 to about £80 per annum.

Prospectuses of any of the Schools, and Forms to be filled up before admission, may be obtained at the several Schools, or from the Secretary of the G.P.D.S.T., Broadway Court, S.W.1.

In 1933, at their annual general meeting, the head mistresses discussed the possibility of instituting an educational experiment within their schools. The discussion resulted in the following memorandum:

The Head Mistresses considered in what ways the schools could make use of their corporate tradition to initiate an experiment which would serve the cause of national education.

The Trust Schools were among the pioneers of the years 1870 to 1900, and by training the teachers of the future they spread their ideals into every corner of England and to a great extent set the standard of girls' education for the first decade of the twentieth century. Then the new rate-aided schools began to set a new standard in school building and equipment and in these schools boys and girls were regarded as having equal right to playing-fields. In respect of these material things the rate-aided schools have been pioneers and have made a notable contribution to education.

Has the time come when the Trust could again do pioneer work?

The Trust has always stressed the spiritual aspect of education, as the preparation of the girl for complete self-fulfilment through service, or, as Mrs. William Grey put it sixty years ago, 'the training of the individual girl, by the development of her mental and moral faculties, to

understand the relation in which she stands to the physical world around her, to her fellow-beings . . . to her God'.

Much concerned as the Head Mistresses must be with material things such as buildings and playing-fields and with matters pertaining to the girls' physical development, yet it is always the development of mind and character which is their chief care. Such, however, is the pressure of administrative duties that they find less time than they would wish for studying modern theories of education and the psychology of the development of the growing girl's mental and moral faculties and of her adjustment to her environment.

Accordingly, at their Conference on November 11th, 1933, the Head Mistresses agreed to put before the Council a suggestion which, if adopted, would in their opinion assist the schools to fulfil their purpose more effectively and also give a lead to the country in the matter of educational research.

The suggestion they make is that the Council should engage for one year the services of an experienced woman psychologist, who should visit each of the twenty-five schools for not less than one week. Working in collaboration with the Head Mistress and the staff and observing the normal work and activities of the children, she would act in an advisory capacity, addressing herself to the particular needs of each school. In some schools she might spend the mornings with five different forms in succession to observe the sequence of work at five stages; in others she might observe specially difficult or backward or lethargic classes for two or three mornings each. During the continuous study of one class on one or more mornings, both at work and at play, the trained psychologist would watch for and try to account for signs of fatigue, would judge the apportionment of hand work and mental work, of bodily movement and sedentary work, the variation of methods used in a single lesson, the effect on mental alertness of such things as ventilation, lighting, the fashion of desks, the aspect and size of class-rooms, the size of classes. She would consider whether the younger children seemed over-stimulated by too frequent a change of teacher or of subject, and whether the lack of concentration, to be found at all

stages, is due to too extensive a course of study. She would note the length of lesson periods, the length of the session, the arrangement of the time-table and the choice of hour for subjects which demand close mental concentration; and she might discuss with Head Mistress and staff the amount of home-work set and the advantages or disadvantages of the normal morning session. She could give intelligence tests to certain classes and discuss the results later with the staff.

In the afternoon she could conduct vocational tests for groups of Fifth and Sixth Form girls, and lecture to the staff and to parents on Child Psychology. She could discuss with the staff the care of their own mental health and the preservation of their freshness, and she could perhaps suggest to the Head Mistress ways in which the more mechanical work of the staff could be lightened without loss of efficiency.

Such an experiment would be a piece of pioneer work, which, in the opinion of its Head Mistresses, the Trust, with its unique opportunities and its past record of notable contributions to educational policy in this country, is specially qualified to undertake.

The twenty-five schools would form an admirable field of research, comprising, as they do, schools widely scattered, some very large and some small, some with a larger proportion of country children or of ex-elementary children than the others, yet all giving approximately the same kind of education.

Not only would the Trust's Schools benefit by the stimulus which such visits would give and by the friendly discussion of problems between the expert, the Head Mistress and the staff (free from any suggestion of an inspection!), but the expert herself would gather experience and wisdom in her travels and would collect valuable data to be used in the furtherance of the science of education in this country.

2. SUGGESTED MODIFICATIONS

This memorandum was eventually, in June 1934, presented to a psychologist, who, overcome by the dimensions

of the proposals, suggested a modified form of the scheme. The considerations upon which the modifications were based were not only the impossibility of covering the ground in so short a time, but also the need to obtain adequate knowledge based on recorded fact rather than on impression and guesswork. It was suggested that if the plan were modified to involve work in a smaller number of the schools so that a longer period could be spent in each, and if the general problems mentioned were approached in a somewhat more specialized way, then useful results might be hoped for.

The more specialized approach suggested was indicated by the following re-classification of the problems listed by the Head Mistresses, and this re-classification gives the gist of the answer made by the psychologist to the Head Mistresses' memorandum.

1. *Physical Conditions*

The question of the effect on mental alertness of varying conditions of ventilation, lighting, fashion of desks, aspect and size of class-rooms has already been investigated by the National Union of Teachers in collaboration with the National Institute of Industrial Psychology.¹ It seems advisable, therefore, to omit this part of the work, in order to save time.

2. *Arrangement of Time-Table*

The questions of the proper apportionment of active and sedentary work, of length of lesson, of the most suitable time of day, of change of teacher or subject, and of amount of home-work, are all vitally important matters about which more information is most certainly needed. But the problem of what method is to be used in searching for the facts is complicated by the further problem of individual differences. We at least know enough about the wide range of individual differences to know that it would be very rash to generalize on the above questions. One child, owing to

¹ See the report entitled 'School Buildings,' by Sargent and Seymour, published by the National Union of Teachers, 1932.

her particular intellectual endowments and temperamental constitution, may require much activity and frequent change, another may need quite different conditions. This means that the questions of general conditions of work can probably be best studied through the individual girl and her responses to her particular surroundings.

3. *Teaching Methods*

The same considerations apply to the question of how the subject matter taught is to be presented. Although the experiments in Educational Psychology described in the standard text-books have established certain general principles of the laws of learning, these cannot be considered apart from the question of individual differences.

4. *Mental Health of Teachers*

Although the effect on the teacher is from certain points of view a separate problem it would inevitably be involved in a study of the individual reactions of the children, since it is impossible to study social behaviour whilst considering only one side of a relationship.

5. *Intelligence and Vocational Testing*

How far these particular psychological techniques can be used will depend upon the amount of time available.

6. *Lecturing to Parents and Staff*

Any research scheme that aimed at obtaining results in so short a time as one year¹ could hardly be combined with direct educational work on the part of the investigating psychologist, although indirect effects in spreading an understanding of the psychological approach would certainly be felt. Probably, however, one lecture to parents and one to staff, in each school selected for work, would be quite feasible, and also useful for the purpose of obtaining the parents' co-operation in the experiment.

The following tentative plan² of work is suggested as

¹ The period of this experiment was subsequently extended to a total time of three years.

likely to throw light on the widest number of the problems mentioned above.

1. Each member of the staff would be invited to report on the girls she taught and to mention any that she thought showed special difficulties of adjustment. She would also report on those that she thought were making a particularly satisfactory adjustment.

2. The psychologist would then proceed to examine the children in these two groups in order to find out how the different aspects of the school organization were affecting their behaviour, and would also look for any other influences that appeared to be significant. This study would be carried out in various ways:

- (a) By observing each selected child's behaviour in class during specified periods. This would be carried out prior to any individual testing in order to avoid self-consciousness on the part of the child.
- (b) By group tests of intelligence.
- (c) By individual interviews with the children.
- (d) By interviews with the parents, where possible.

3. These results would then be considered in terms of the light thrown on the general educational problems outlined in the memorandum.

This plan was accepted by the Council of the Trust and in January 1935 the work was begun.

3. SOME GENERAL ASPECTS OF THE PROBLEM

It will be seen from the Head Mistresses' memorandum that their aim in initiating this experiment was to bring about some contribution to general educational policy. An initial bias, however, was given to the work when they and the Trust selected as experimenter a psychologist whose experience had been gained in the industrial rather than in the educational field. For the industrial psychologist primarily approaches his work from the point of view of elimination of waste, and this necessarily influences the standard by which he judges any educational system. It

also raises certain difficulties; in an industrial firm the usefulness of any innovation can be tested accurately and minutely by a study of output and sales, but in a school the matter is not so easy. What measurement shall be used to test the products of education by any particular method? Shall we compare systems according to examination successes or athletic prowess—or according to the after careers of the old pupils of the schools, such as type of occupations taken up, the salaries earned, the number who are unemployed, or divorced, or the number of suicides, the number of titles won, the number of nervous breakdowns? Perhaps some day such comparisons will be made and education will become more nearly a science. In the meantime, in the absence of an agreed criterion, it was still possible to begin at the beginning and try to find out what might be the significant points, in any educational system, where waste is likely to occur, without trying statistical comparisons of the systems. It was felt necessary to try to make this point clear before beginning the experiment, because preliminary conversations with various people concerned in education showed that there was a great variety of assumptions which in fact could not be so easily taken for granted. There were some who assumed that schools like these, with their fine traditions of scholarship and social purpose, were doing all that they set out to do, and that any change would probably be for the worse. There were others who, considering the amount of unhappiness and ineptitude which they see in the world to-day, amongst the so-called educated as well as the uneducated classes, assume that there must be something wrong with education, and the sooner all its institutions are overhauled the better. Behind both these assumptions lies our ignorance of what in fact is happening in schools, from the point of view of helping a child to make the full use of her capacities and enthusiasms rather than wasting them in futile or misdirected effort; for much is known as a matter of opinion, but very little as a matter of tested and well-established fact. In this

experiment, therefore, it was decided to try to begin in a small way with a descriptive study of what may be happening to individual children.

Although this method of approach seemed at first open to the objection that it might focus attention too much upon the problems of the so-called 'difficult' child, it was felt that this objection was not really valid; for it is becoming more and more realized that, just as there are no hard and fast types in character, so there is no hard and fast line between the so-called normal and abnormal; apart from certifiable mental disease, the difference is simply a matter of degree. Thus the child who shows difficulties of behaviour is only giving dramatic expression to mental mechanisms which are potentially present in every one. In other words, it seems that adjustment to one's surroundings is a relative, not an absolute matter, and that those who appear capable, efficient and 'normal' in surroundings which suit them, will be quite otherwise in a milieu which is not in harmony with their capacities and general bent. Thus, although at any one time there may be a relatively small number of children in each school showing difficulties of behaviour, the general principles underlying such manifestations are likely to be applicable to all.

CHAPTER II

THE PROBLEMS AS SEEN BY THE STAFFS

I. INTERVIEWS WITH MEMBERS OF STAFFS

A WHOLE term was spent in each of the two schools first visited and half a term in each of the next five. In each school the staff were first invited to come for individual interviews to report upon whatever they might feel to be the main difficulties of their work. At the time of the interview no attempt was made to limit the discussions to problems upon which the psychologist could give definite advice, since it was felt that the actual scope of the psychologist's work in schools of this type was something not as yet clearly defined. In fact it was a part of the experiment to find out in what way the psychologist could help the school staffs. As another aspect of the problem it was not to be expected that all members of the staff would be equally frank about the difficulties they had encountered, since they were talking to a perfect stranger who had been in the school only a few days, and some of them were naturally inclined to regard a psychologist with a certain amount of suspicion. Bearing these limitations of the technique in mind, the following summaries will give some idea of the kind of problems discussed.¹ These summaries are not in any way exhaustive, and it is impossible to give any statistical analysis of the incidence of different kinds of problems. There were one or two members of the staff in most of the schools who did not come for an interview, either because

¹ Naturally these interviews were entirely confidential. In this summary, therefore, I have omitted any statements with a personal implication, and I have often amalgamated the comments of various mistresses with similar views to avoid the obvious tracing of any particular statement to any particular person. At the same time, I have tried to keep as much of the original wording and vividness of statement as possible.

they were too busy or because they did not wish to; in one small school it was very difficult to arrange any interviews as most of the staff had no free periods during school hours. Also some of those who did come had nothing that they particularly wished to discuss, for they were well satisfied with the educational system as they had experienced it. Further, many of those who had thought over and been able to put into words particular difficulties that they had experienced, were also exceedingly appreciative of other aspects of the system, and very happy in their work. The form of classification used in the following summary is purposely very rough and the opinions quoted are not given in any logical order. The material was not obtained in logical order and any attempt to impose such an order upon it would imply the existence of a particular logic or theory; and although it is hoped that such a logic will to some extent be developed in the later part of this book, it is important to keep clear the distinction between the imposed logic and the original observed facts. Thus the opinions noted here are the observed facts, obtained during the interviews, and, as far as possible, have only been selected for quoting on the basis of vividness of statement, not on the basis of any preconceived theory.

1. *Views on Class Teaching and the Teacher-Taught Relationship*

(The children in these schools are taught in classes, according to a fixed time table, with usually from twenty-five to thirty-five girls in each class. Often the Sixth Forms (aged sixteen to eighteen) have one or two large tables to work at; also in some of the younger forms in the Junior Houses, containing children from four to seven or eight, each child has a light table and chair. All the other forms have desks arranged in rows with the mistress's desk facing the girls' desks. Some interesting experiments in various kinds of individual work have been tried with single forms in some of the schools at various times.)

Difficulty of form mistress in getting to know her form when very often she does not teach them at all. Thinks

that children are not putting in their share of the work, they don't really work in class. 'We try so hard to make it amusing but certainly when they leave no one is going to do that.'

'We seem to have to consider each girl as if one was her private governess.'

Thinks the children are spoonfed. Thinks that fatigue partly due to fact that 'if you let up attention for a minute you've lost them'.

Problem of change of régime when a form passes up to another form mistress with different methods of discipline . . . transition from strict disciplinarian to one who believes in independence, resulting period of apparent unruliness.

The children take so long to settle down nowadays, the forty minutes' lesson is so short, by the time they really get to work the bell goes, feels something will have to happen, 'the schools can't go on like this, there are far too many (thirty to thirty-five) in a form, one used to be able to teach that number, but with the modern child, who is used to more freedom, it can't be done'.

'Certainly the staff do too much for the children. How much should we try to keep them up to the mark in sending in work and so on? How much are we responsible to the parents to make them work?'

Has been fifteen years in the school and finds discipline much improved; but finds there is never time to have any individual talk with a girl, girls report their misdemeanours to her at 12.55, the bell goes at one o'clock, and there is hardly time even to get their books out.

'How much keeping up of the position of the staff should there be?' Feels the relationship should be as natural as possible.

Finds teaching very tiring because of the continual domination of the class.

'Why do people behave abominably in groups though perfectly nice as individuals? The problem occurs every time a new mistress comes.'

'Why are teachers so often ashamed to admit their profession in ordinary social life? They say it is because the ordinary public expect them to criticize. Is this something

left over from the old idea of the function of a teacher or is it true in some sense?"

Problem that those members of the staff who obviously find discipline difficult are afraid to ask help or advice about it from those who have discovered how to solve the problem.

'Is it best to have the children's desks all grouped together and the mistress's desk separate, often on a raised platform?"

'Is there too much teaching? How much preparation is given out in terms of "Read these pages"? and how much is "Find this out for yourself in any books you can get"?"

Difficulty of teaching a form that is markedly divided into two 'sets' with different attitudes, one sophisticated, the other more childlike.

'How should one deal with variations of ability in one form?"

Finds a good deal of resentment shown in class. Thinks it must be due to something hidden. Finds some girls who are perfectly charming to meet socially but continue to be perfect demons in certain lessons: for example, a child who continually knocked books off other people's desks.

Thinks there is a wrong relationship, the children are not taught to say 'thank you' after a lesson. One child, after being reprimanded for rudeness to a mistress was heard to say, 'After all, she's paid to do it.'

Prejudice against teachers, 'Ordinary people expect us to tick them off—and we do.'

'Do we dominate and overpower the children too much? Do we use our extra knowledge and experience to coerce them?"

Occasionally she gets a group that seems to be working against her and when thinking over all the children, comes to the conclusion that it's just three or four girls, and everything is much better when they are away. But she does not think they do it on purpose.

Greatest difficulty is how to deal with variations of ability within one group.

2. *Views on Individual Work Methods, Dalton Plan, etc.*

Had experience in a Dalton school and found far more

'work attitude', the girls took on responsibility for what they did.

Tried Dalton Plan in History for a year or so but found there were not really enough books.

Had experience in Dalton Plan. One and a half hours' free study time each day, mistresses sat in 'subject' rooms, girls came if they liked, and 'you weren't allowed to look and see if they were doing your work'. Thinks it just gave them unlimited opportunity for making mistakes, and through reduction of number of lessons, reduced opportunity for preventing mistakes; also it encouraged slackness and rushing through written work in languages regardless of grammar learnt. Thinks it's certainly not any good for foreign languages, and that it seems rather silly to want to give a child of that age responsibility for arranging her own work.

Tried a 'find out for yourself' method in History, with Upper III¹ and Upper IV, but the parallel form got behind and had to have some teaching to catch up. Difficulties were: (1) Lack of room; (2) Lack of time (has cut 1,000 years off the syllabus); (3) Lack of reference books; (4) A few brighter ones don't like it, because they want to 'get on with it'. Has tried some group work, putting three on to study India, for instance, four to study something else. In Upper V has turned four bright girls out of her class to work alone. Thinks there is value in class teaching for the others because of discussion, thinks the value of this has been recently under-emphasized, also they can be told things that it would take such ages for them to find out for themselves.

Nine girls who need special treatment have been selected from Upper III year, by the head of the Junior School, and a modified Dalton Plan is to be used.

Feels that a University degree unfits a teacher for the more practical 'activity' type of education, feels that she herself could not change her methods, and that these schools ought to be smaller and cater for the academically minded only.

Tried Dalton Plan when she first came (English) as her predecessor had done it, found that many disliked it and

¹ For average ages of forms, see Table, p. 31.

finally the form struck, they felt it such a waste to have the mistress sitting there while she might be telling them things.

Finds difficulty in teaching Mathematics in a group from such varying backgrounds; Elementary school children who have too much been taught to do what they are told, others, from Montessori schools and so on, who have not been taught it enough.

Tried Dalton Plan for Greek history in a Fourth Form, it was very successful for some, although others got hopelessly behind. Gave it up because they were losing power to concentrate as a body in a lesson, their wits would wander.

3. *Views on General Problems of Discipline and Control*

(The chief methods in use in these schools for dealing with minor breaches of discipline are:

- (1) *The 'order mark' or 'conduct mark' used in some schools only. Sometimes after two or three order marks have been incurred, the child has then to do a 'detention' i.e. stay in after school, doing extra work.*
- (2) *'Report to form mistress.' The girl has to tell her form mistress that she has been reprimanded by another member of the staff and the form mistress has to make suitable comments designed to ensure that the girl will not repeat the offence. A private record of these 'reports' is usually kept by the form mistress.*

Major breaches of discipline are dealt with by the Head Mistress. In cases of flagrant disobedience or rudeness to the staff, a girl is sometimes suspended from school for a number of days.

Prefects are selected from amongst the older girls, sometimes elected by staff and girls, sometimes chosen by staff and Head Mistress only. In some schools there are two form leaders in each form chosen each term—one elected by the girls, one chosen by the form mistress.)

Thinks the girls are terribly oversupervised.

A senior mistress reports an experiment in self-government in the school fifteen years ago, how it was discussed with the Sixth, who were in favour, but rejected by the

Fifth Form, who said that 'the Middle School should be allowed their naughtiness, it is good for them'.

Notices how quickly the children respond to qualities of voice, particularly to any nerviness or impatience.

'How much should one use comparisons—for instance, show an untidy child how neat another is?'

'How much should one check exuberance?'

'How can eleven-year-olds at the top of the Junior School be helped to develop an attitude appropriate to the Senior School?'

Finds the Upper III so disobedient, 'they are almost certain to do the opposite'.

One school has tried the experiment of making the Middle School elect their own captains and making them entirely responsible for themselves, with no Sixth Form prefects.

Also sometimes a day's silence is imposed on a whole form, if they have been tiresome, or on an individual, who is put to work in a room alone.

'Isn't all this modern idea of letting them do what they like when they like, isn't all this going to make things too easy?'

'How can you teach them to face difficulty, how not to crumple up under difficulty?'

'Can you teach courage?'

'Form committees seem to be quite useless for dealing with real problems, because the girls are shy, do not talk much, afraid, not sure what they may say, feel they cannot criticize the staff, and without that there is no chance of airing their grievance.'

Thinks 'self-discipline' is no good for children, too much responsibility. When tried the meetings failed because 'the children said such awful things' and the staff could not defend themselves because of loyalties to the Head and to each other.

'No punishments in this school, only detentions for bad work. There is a general feeling that punishments do not help you to do better. Children can be sent out of the room, if tiresome—this happens about twice a week, perhaps, in the Senior School. But mistresses tend to feel it is a reflection on them if they have to do it too often.'

Thinks it better if one form leader is chosen by staff, as in some schools, not both elected by girls; because at present some girls go on being elected year after year, only to be a leader into naughtiness.

One girl was heard to say, 'Oh, I'm not naughty enough to be a prefect.'

Feels the girls are so content to be onlookers, lacking in sense of responsibility.

'Do we use fear too much?'

'What is the best way for the form mistress to deal with the "reported" child?'

Case of persistent disobedience and rudeness. Head mistress told the form mistress to tell the girl just what she thought of her. Was this a good way? Child went into hysterics, mistress hated doing it.

Form mistress who found she could manage 'reports' best by always listening to their story, and by taking the attitude 'What's up now?' and by making them laugh.

Another managed by giving out that she was so bored when they were reported to her, because she never knew what to say; since they did not want to bore her they would try not to get reported.

Sending children out of the room; about two a week in one school. Head mistress often finds them sitting outside and talks to them, pointing out that it is the normal social consequence of not recognizing the needs of the community. Thinks this is better than any artificial penalty.

Thinks reporting unnecessary, prefers to look the other way if child disobeys. Says she obtained discipline by knowing exactly what she was going to do.

'Just cannot give order marks or conduct marks although I have no theoretical objection against them. I try to avoid all occasions where direct disobedience is possible.'

'It is so exhausting "ticking people off", but some is probably necessary.'

A science mistress says she has never reported any one from a laboratory lesson but has used it in the Junior School when she has to deal with children she does not know.

A Junior School mistress mentions the everlasting problem of how much restriction to impose on noise. Used to try silence rules and simply police them. Now has

only a silence rule for going down and up from prayers, and lets those who have been silent say so.

A senior mistress thinks conduct marks and so on are out of place in modern life with its changed relationship between the young and adults, 'now that there is so much more free-and-easiness'.

A form mistress finds it often very difficult to go on haranguing the children for small things. She hardly ever reports a child herself but thinks the fault should be dealt with on the spot.

Another thinks that reporting does not mean much to the girls, they are quite unmoved by it and say: 'I had another report to-day; I can't think what it was for'.

Another does not regard the report to the form mistress as a punishment, and thinks it is a great help to show the form mistress how the child is managing her life.

One, a senior mistress, says hardly a day passes without something being reported to her about a particular group of girls in her form. Often it concerns some particular idiosyncrasies of mistresses so it is very difficult to be both loyal to staff and reasonable with the girls.

Another thinks far too much reporting is done, and finds it so difficult to do a homily out of its context; she thinks the 'Nelson eye' should be used much more.

A games mistress thinks there is a general feeling amongst the staff that there should be more discipline, that the children should be *made* to do something other than just pleasing themselves.

4. *Views on Fatigue of Staff*

(The proportion of working time to holidays in these schools is the same as for most other schools in England offering secondary education; that is, three twelve or thirteen week terms, with about four weeks' holiday at Christmas and Easter and six weeks in the summer. The staff in these schools are expected to work a minimum of forty hours a week during term. The actual school hours are from 8.40 a.m. to 4 p.m., from Monday to Friday, with one, or sometimes two, free afternoons a week. The number of lessons given in the week varies from about twenty-eight to thirty-three, and,

owing to the pressure of the time-table, some lessons are now given in the afternoon. The rest of the time is spent in supervision of various kinds; of girls doing preparation, of games, of 'recreation,' of girls in the cloakrooms, of girls having their dinner. No member of the staff is allowed to leave the building during school hours, even though she may be having a 'free period' when she neither teaches nor supervises. A large proportion of those interviewed said that they spent all their evenings during the week in correcting the girls' homework or preparing the next day's lessons.)

Teaching not tiring in general but constant changes are.

Worst fatigue factor is continual feeling of something you ought to be doing.

Always had too much work, thinks personal fatigue equation of each should be known by the head mistress, the crucial breaking point for each member of staff.

Artificiality of rhythm of teacher's life of extreme pressure of work and then long holidays.

Never had a day's illness, but when gets home from work can do nothing at all, and has always a nagging conscience over corrections.

Has now learnt to protect herself and gets corrections (language subject) done in class by children themselves writing above their work what it should be.

Thinks there is too much essay correcting, but thinks it's not fair just to take a selection each time.

Always manages to arrange her work so that she need not take any home with her, sometimes just checks the names to see that all have done a piece of homework and then puts it all in the waste-paper basket.

Thinks it is all the small organization tasks which are so tiring, all the things that have to be remembered, rather than the teaching.

A senior English mistress says: 'The corrections are just oppressive.'

The head of a Mathematics department says that school life is desperately tiring, after about the first fortnight of term all freshness vanishes.

A young History mistress says it is not a bit tiring, she never takes any work home, finds it easy to look over

homework quickly and 'see what sort of a job they have made of it'.

Finds it difficult to get enough social life.

Comments on the astonishing amount of work that the staff do that does not appear on the time-table.

After twenty years in the school finds the lessons very tiring and is much slower over corrections.

Quotes an A.A.M.¹ report that there are a greater number of breakdowns among teachers than in any other profession and that there are most amongst science teachers.

Does not find it tiring, often the reverse, comes to school tired and by the end of the morning feels quite refreshed by contact with the children.

Extreme fatigue of having to do about four things at once, watch that they don't hurt themselves, teach, keep them in order, and so on.

5. *Views on Noise and Rush*

(The number of silence rules varies in the different schools. In some of the larger schools the girls are forbidden to talk on the stairs or in the passages, or in the cloakrooms at certain times. In some of the smaller schools there are no silence rules, but the girls have to walk in single file when in the passages.)

In a school with silence rules only when going in and out of prayers, a young mistress reports that there is too much noise, she would like silence in the corridors.

In the same school another young mistress reports that the main problem is noise, the children have so many interesting things to talk about—they are keen, but so noisily keen, no moderation; she finds it wearing.

An older mistress in the same school finds the noise wearing between lessons.

Another sometimes altogether gives up trying to stop them talking, reports that they don't seem to know when they are doing it, they promise to be quieter but are making just as much noise the next minute.

But a senior mistress thinks that silence rules on the

¹ Association of Assistant Mistresses.

stairs is not the solution because this leads to a 'tight' attitude.

A Junior School mistress says there is too much rush. Need children of this age (age seven to nine) do things in such a hurry in cloakrooms, getting out books and so on? 'We always seem to be chivvying them.'

A games mistress says there is no time for anything, every one is so rushed.

A form mistress finds the amount of clerical work a problem, e.g. the continual making of lists, etc.

A language specialist finds great oppression of rush.

Another specialist finds great sense of rush through having only one lesson a week in her subject with each form, so feels there is no time for anything.

A History mistress says there is no time to give them the 'tit-bits' if the syllabus is to be covered.

A form mistress says there is never a moment for a quiet talk with a girl about her difficulties. In the morning the girls are allowed into their form room at 8.50, the silence bell goes at nine o'clock, then lessons begin at once, after prayers. At 12.55 they come to report their misdemeanours, but the bell goes at one o'clock and they have to hurry to get out of the cloakroom, or ready for dinner, in time.

6. *Views on Inter-relationships of Staff, Subjects Taught, etc.*

(The amount of time to be given to each subject during the week is a source of much discussion, and sometimes considerable emotional disturbance amongst various members of the staff.)

A Head Mistress says that parents continually come to her saying 'Betty can't get on with Miss X', and, 'Jane can only learn from Miss X.'

Feels particularly in sympathy with children of about age twelve, but organization problems always seem to make it necessary that she should be form mistress to a different age with which she is not in sympathy.

A Science specialist finds that the bright girls who are good at languages are over-influenced in favour of these, so can never take up two sciences.

Thinks the schools often get too much of a classical bias,

and that the classical mind does not sufficiently understand the processes of reflection, it makes the mind too tidy.

Junior specialist has different ideas of how subject should be presented from other members of the department but if she changed and worked on these lines children could not change from one division to other.

Music specialist thinks no subject so truly educational, since it trains control, accuracy, observation, sense of touch, sight, hearing, rhythm, and muscular action all at the same time. But music has a very small place on the time-table in her school.

Feels that any specialist training gives one a very high standard of achievement in the subject, which one then has to lower and be satisfied with scrappy, scanty teaching because of lack of time.

English specialist feels they need far more time for practice in writing English.

Feels there's too much emphasis on languages at expense of English.

Games specialist thinks that a girl who does not want to play games should not be forced to do so.

A Head Mistress feels that younger members of staff who are fresh and on top of their form do not realize the problems of the older ones.

Difficulties of free discussion at staff meetings because they know they will come up against each other's basic prejudices if they once begin.

Feels Latin fulfils a real function of precise mental activity for its own sake, it is one of the few things in which you have to think before you do anything.

Thinks the curriculum is planned almost entirely in order to prepare girls for University work, and yet only from 6 to 10 per cent of the girls ever reach the University.

7. *Views on the Problem of the 'B' Form*

(In most of these schools there are enough children at each stage to make two parallel forms with twenty-five or thirty children in each. In some of the schools the parallel forms are simply divided alphabetically; in others, there is an 'A' and 'B' form, the 'B' form being

composed of the less intelligent children. Occasionally the division into bright and less bright children is made as low down in the school as the eight- or nine-year-old stage, usually it does not begin till the Upper IV or Lower V year. In nearly all the schools, whether with or without 'B' forms, the children are classified according to ability into A, B and C divisions for Languages, Mathematics, and sometimes Science.)

Junior House mistress reports that in her school the 'B' form begins at 8 or 9; they are meant to manage better because there are fewer children; but they have no difference of syllabus from the 'A's. The English and History syllabus is too long for them. They need more practical work in connexion with History, more expressive work, but if they have it, they don't get through their syllabus and the 'A' form gets ahead.

Difficulty of getting the 'B' form in Mathematics to put down the steps when they have got the answer right. It is better if they speak it out on the board. Thinks there is a lack of sense of pattern, though their photographic memory is often more accurate than the 'A's. They love to do the things the longest way round so that they can work by rule.

Thinks there should be no 'A' and 'B' forms, but that they should be parallel all the way up the school, for English and History, to give an idea of standard, and in divisions for other subjects. Thinks it is awful to be dubbed a 'B' person.

On the whole the 'B's get no chance to learn Latin but there is some feeling amongst the girls that it is inferior not to do so. But 'B's never get beyond declensions and verbs and they can get this kind of mental drill just as well from other more useful subjects.

What is the value of Mathematics to a 'C' division? Feels it should be much more practical. Finds that they like going on and doing stereotyped work, like a long sum, but dislike problems. But to move up from a 'C' division to a 'B' one, as is often done now, would be difficult if the syllabus for 'C's were more practical. Also some might suddenly want to take School Certificate.

Difficulty of distinguishing between inability and slacking in 'C' divisions.

Difficulty of instituting more practical work. 'Parents come along all insulted and insist that the child shall try and be an intellectual success.'

A Biology mistress reports that all the really stupid ones have to take Biology, most of the bright ones choose General Science (Chemistry and Physics).

French specialist thinks there should be a minimum time-table, English, History, Geography, Arithmetic, Science; no French, no Mathematics. Restricted time-table to bring back sense of achievement to the 'B's, a minimum time-table for all, letting the bright ones add to it, instead of as now, a maximum for all and the dull ones drop something when they can't keep up. And since the foundation of French is proficiency in one's own language, there should be five lessons a week in English, instead of two. Also 'B's need more repetition so again should have fewer subjects and more lessons. They need lessons more than the bright ones, and get more from them; often they are not lacking in initiative and are good at everything except lessons.

'B' forms work much more for marks.

Many 'B' girls are entirely unsuited to book work.

Feels there is a very large proportion of children who are 'stupid', and yet seem, outside school life, to be bright and satisfactory people. Thinks the reasons may be that you may not drop a subject you are hopeless at, and the regimentation resulting from the domination of School Certificate, so that no impression is made on dozens of them; also the false relation with the staff resulting from continual exhortation. Thinks staff are unduly critical, especially at end of term.

Thinks one in ten are completely hopeless at French and yet French is compulsory subject up till the Sixth, unless the girl can substitute Latin or German.

A 'B' form sometimes content to give in their worst work. They are very quickly tired and absent-minded, but very sweet, they never seem to mind what you say to them.

Would like division into 'A' and 'B' forms earlier than Middle School.

Has once tried only oral work (French) with 'B's, it seemed rather successful but the inspector objected.

Thinks that one of the 'C' division in French will never learn anything, they have been at it five years and cannot yet say what 'he had' is in French.

The 'B's in science do better with demonstration than doing it themselves, there is too much to cope with, managing their hands as well.

Some of the 'B' people are too busy with their hair and looks to attend to their work (Domestic Science). They do Housecraft and Chemistry and Theory of Cooking but do not seem to take it in, let alone learn it. They can't see how the experiments apply to practical matters, for instance, making oxygen.

'B's are on the whole, easier to discuss with, to get going, than 'A's, but they don't remember it, they are easy to interest but it leaves little mark.

In Lower V year, has twelve girls doing the same Arithmetic that some one else did with them five years ago in Lower III. They don't know their tables even.

In Lower IV year (French) has a group of girls of the over-grown, eyebrow-plucking type, who are no use at languages, resentful, need to be nagged all the time, often in their fourth year at French, but can't do what the first year people do. Why mayn't they drop it? They are of heavy physique, early developed, keen on boys, and they become utterly dull with a nagging resentment of the subject and the mistress. They often have to use books that are handed on by younger groups.

Has five lessons a week in Mathematics with eleven-year-olds—and only one in physics; would like another physics as so many can understand a thing practically but not theoretically.

Very hard to teach 'B' people Mathematics because they can't see what it's for; they say 'We are not going to be Architects or what not, so why should we do it?' They quite enjoy the practical side, when they start measuring heights and so on, but they are not interested in or capable of deductive logic. Feels they should have a different syllabus instead of limping along after the others.

Prefers not to divide children according to ability

(Science) until Lower V year because she thinks the stupid child is carried along by the bright ones.

A Junior School mistress thinks non-bookish children in Senior School due to having books too difficult for them in the Junior School, so staff have to spend all the time explaining and making it nice. Feels they are over-stretched all the time in the Junior School.

Other subjects frequently brought up for discussion were the vexed questions of examinations and preparation. No account of the varying views held is attempted here, partly for reasons of space, partly because there is already an extensive literature reviewing these problems in general terms.¹

The particular aspects of these general questions will be considered in relation to the responses and attitudes of individual children.

The above roughly classified summaries are intended to give some idea of the range of problems discussed. The problems uppermost in the minds of the greatest number of mistresses seemed to be:

1. The sense of rush induced largely by the requirements of the examination system.
2. The difficulty of attempting to teach the non-academic child by means of an academic examination curriculum.

2. THE LISTS OF 'DIFFICULT' GIRLS

Another aspect of the problem as seen by the staffs is shown by the behaviour difficulties reported for individual girls. The following analysis (Table I) shows the kind of reasons given by the staff for putting a child on the list² of

¹ For example: B. of Education Report on 'Homework', His Majesty's Stationery Office, 1937; 'The Examination Tangle and the Way Out', edited by Wyatt Rawson, New Education Fellowship, 1935.

² Owing to limitations of time, children below the Lower Third Form were not included in these lists.

children to be interviewed on account of some difficulty of adjustment. The meaning of 'difficult' had not been defined, but it had been left to the staffs themselves to give it any interpretation they chose. The letters n, z, s and so on refer to different schools and each letter signifies one child to whom the particular description has been applied. Thus eleven o's against the heading 'Noisy, talkative, excitable, boisterous, rough,' indicates that these qualities were mentioned eleven times by various members of the staff in the school for which that symbol has been chosen.

TABLE I

CLASSIFICATION OF REASONS GIVEN BY STAFFS FOR
REFERRING CASES FOR INTERVIEW

A. ATTITUDE TO WORK

1. Indifferent, lazy, no effort, persistently idle, etc	xxxxxxoooo oooooonnnn nnnnaaaaaa aaaaaaassu z	4 ¹
2. Aggressively bored, determined not to be interested.	nsuuuzz	7

B. QUALITY OF WORK

1. Dull, very slow, muddle- headed, very poor reasoning power. ¹	xxxxxxnnaa sssszzzzz zzzzzzzzzz zzzzzzz	37
2. Not doing as well as she might, untidy, inaccurate.	xxooooonnn nnnnnnaaaa aaaaaaaaaa aaaaasssss suuuuuuuuu uuuuuuuzzz	60

¹ Girls who were felt to be just stupid, but doing their best, were not included in the lists. Thus, dullness was only given as a reason for referring a girl for interview when it seemed combined with some other difficulty.

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3. Lack of attention, no concentration.	xxxxxxxooo nnnaaaaaaa aaaaassuuu uuuuuuuuzz zzzz	44
4. Distracted by too many pursuits.	x	1

C. RESPONSE TO AUTHORITY

1. Heedless of rules, disobedient, naughty.	oooooooooooo nnaasssu	18
2. Manner sulky, rude, superior, insolent, don't care, hostile.	xoooooooooooo ooooooooonnnn aaaaaasssu uuuuuuzzz	38
3. Resents correction.	xooooauzz	9
4. Deceitful, slippery, equivocates, lies, evades duties.	xonnnnnnnna suuz	14

D. RESPONSE TO OTHER PEOPLE AND TO SELF

1. Bossy, aggressive, argumentative, quarrelsome.	xxooooonnn nnnnaauuu	19
2. Continually playing for attention.	xoonaassuu zzzz	14
3. Shut in, reserved, solitary, no friends, too quiet, etc.	xxnassssuu uuuuuuuuuu uuuuuuuuuuz	30
4. Permanent sense of grudge or grievance.	xonuuuzz	8

THE PROBLEMS AS SEEN BY THE STAFFS 31

5. Timid, nervous, over-sensitive, anxious, no confidence.	xxooooonnaa aaaaaaaaasu uuuuuuuuzzz zzzzzzzzz	39
6. Egotistical, conceited, spoilt.	xxooooonnn aasssu	16

E. CONTROL AND STABILITY

1. Noisy, talkative, excitable, boisterous, rough.	xxxxoooooo ooooonnnnn nnnnnnnnna aaaassuuuu u	41
2. Fidgety, restless.	oasssuuuu	9
3. Moody, unreliable, obstinate.	xxoonnnnnn aasssz	16
4. Jumpy, irritable, fussy, etc.	oooaaauuuu	10
5. Examination panic.	onaau	5
6. Bad at physical work.	xxxxxxns	8

F. MISCELLANEOUS

1. Dull or lazy?	uzz	3
2. Over-developed sexually.	xu	2
3. 'Trying', 'difficult'.	xxzzzz	6
4. Unpopular, laughed at, etc.	xxxna	5

Total 490

Some girls were found 'difficult' by a majority of the staff, some only by one or two. Table II shows the number of girls in each school who were mentioned by one, two, three, four, five, or six members of the staff. These figures are only rough indications, as sometimes a mistress said she had not put a certain girl's name on the list as she knew that others were mentioning her, so she had not bothered.

Also the attitude of the staff towards the task of making lists of difficult children varied from school to school, and it was impossible to ensure entirely comparable conditions. A few mistresses said they had no names to put on the list, and some of these added that they would look upon it as a reflection upon themselves if they found any girl difficult.

Two schools are omitted because the list of 'difficults' had been made by the form mistresses only.

TABLE II

SUMMARY OF NUMBER OF GIRLS ON THE 'DIFFICULT' LIST ACCORDING TO THE NUMBER OF OPINIONS ON EACH GIRL

<i>Times Mentioned</i>	<i>Once</i>	<i>Twice</i>	<i>Three times</i>	<i>Four times</i>	<i>Five times</i>	<i>Six times</i>	<i>Total girls mentioned in each school</i>
School 'a' .	15	8	7	1	1	1	33
School 'b' .	28	6	6	3	—	1	44
School 'c' .	21	4	4	1	1	—	31
School 'd' .	17	9	7	1	1	—	35
School 'e' .	27	23	11	2	—	—	63
Total girls mentioned the specified number of times .	108	50	35	8	3	2	206 ¹

Table III shows how the numbers of 'difficults' are distributed throughout the different forms. At the beginning of this experiment there had been some discussion amongst the head mistresses of what was the 'most difficult age'.

¹ The total number of girls covered in these five schools was 1201, making the proportion of girls mentioned 17 per cent.

TABLE III

NUMBER OF GIRLS MENTIONED AS 'DIFFICULT' IN EACH FORM, AND EACH SCHOOL

<i>Form</i>	<i>L. III</i>	<i>Up. III</i>	<i>L. IV</i>	<i>Up. IV</i>	<i>L. V</i>	<i>Up. V</i>	<i>VI</i>	<i>Totals by Schools</i>
Range of average ages of forms	10.5 to 11.1	11.4 to 12.2	12.3 to 13.3	13.6 to 14.4	14.0 to 15.0	15.0 to 16.0	16—	
School 1	—	4	9	13	23	11	3	63
„ 2	3	4	10	5	14	3	2	41
„ 3	—	6	13	5	12	6	3	45
„ 4	6	5	4	3	8	8	2	36
„ 5	2	7	12	7	9	15	3	55
„ 6	—	6	4	8	9	—	3	30
„ 7	—	4	4	6	1	3	—	18
Totals by forms	11	36	56	47	76	46	16	288 ¹
Proportion of total of 'difficults'	4	12½	19½	16½	26½	16	5½	%

According to this Table the Lower V forms provide the greatest number in the aggregate (being 26½ per cent of all the cases reported), and also separately in schools 1, 2, 6, while in school 3 the figure is high. The next largest contribution is from the Lower IV (19½ per cent), supported

¹ 288 girls is 16 per cent of the 1,832 girls covered in the seven schools studied. The number of girls included in this figure, who were actually looked upon as real 'problems cases' by the staff was very small.

separately by a peak figure in schools 2, 3, 5. There is also a peak figure in school 5 in the Upper V and in school 1 in the Upper IV. Whether these figures really support the idea of a 'most difficult age' is doubtful.

3. THE STAFF'S ASSESSMENTS OF ALL THE GIRLS IN ONE SCHOOL

In the first school visited it was thought that it might be useful to obtain reports from the mistresses on the general adjustment to school life of all the girls they taught. Accordingly a schedule of items to be judged was drawn up. Every member of the staff was asked to judge each girl she taught in respect of each of these aspects of personality and behaviour. The letters a, b, c, d, e, were to indicate the different degrees of the quality; the letter c, for instance, was to be marked if the mistress felt the girl possessed an average degree of the quality mentioned, b or d if she felt it was above or below the average, and a or e if she felt it was extremely marked or extremely deficient. She could also underline any of the adjectives she felt to be markedly applicable, and was asked to add any remarks or special information she possessed about the girl's achievements and situation. The schedule, as shown, on pages 36 and 37, is one that was actually filled in by a language specialist for a Sixth Form girl.

Although several members of the staff commented that they found it interesting to be asked to formulate their opinions about the girls they taught in this precise way, the plan actually involved far too much work for the staff and was discontinued in all the other schools visited.

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A word should be said about any statistical results quoted in this book. It was felt that the time had certainly not yet come for any statistical survey; the aim of the experiment was to find out what kind of contribution the psychologist

could make to educational problems, and in order to do so it was necessary first to concentrate upon trying to obtain a clear idea of what kinds of problems existed, rather than to attempt any exact statement of the number of times each problem occurred. Although the Council of the Trust felt the importance of visits to a number of schools, in order that different conditions might be observed, it was not only inadvisable, but also quite impossible to make comparisons in terms of general evaluations. It is necessary to mention this because so often the question whether one school was 'better' or 'worse' than another was raised. In practical life it is often convenient to make such wholesale generalizations of value, but they would have been quite out of place in this survey. For this reason any statistics given are purposely arranged so that no school can be identified and compared as a whole with any other school. Also, in trying to state the problems observed, the experimenter concentrated as far as possible upon those that were common to the different schools, rather than upon those that were specific to each, so that any results obtained might have as wide an application as possible.

REPORT ON SCHOOL ADJUSTMENT

<i>Form Mistress.</i> E. Smith	<i>Name of Reporter.</i> E. Smith	<i>Name of Girl.</i> Eva Brown
<i>Form.</i> Lower VI	<i>Subject(s) Taught.</i> French	<i>Age.</i> 16

WORK

1. General level of intelligence—
Above average b c Below average d e
2. Standard of work—
Above average b c Below average d e
3. Capacity for the subject—
Shows special talent a c Finds it difficult d e
4. Extent to which she uses her capacity—
Makes the best of it b c Could do better if she tried d e
5. Reliability of work—
Little variation a c Variable and erratic d e
6. Originality of work—
A personal touch in all she does a c Lacking in distinction d e

PERSONALITY

7. Appearance pleasing b c Appears indifferent or depressed
8. Mood—
Appears to be happy, enjoying herself a c (i) In Lessons d e
(ii) Out of Lessons

9. Self-expression—
 Throws herself into whatever is going on
 a b c
 10. Attention—
 Alert, aware of her surroundings
 a b c
 11. Social Contacts—
 Gets on well with other girls
 a b c
 Has marked special friendships
 a b c
 Generally at ease and confident
 a b c
 Tends to be leader in her group
 a b c
 Independent, knows her own mind
 a b c
- Never any trouble but never contributes anything
 d e
 Frequently day-dreaming
 d e
 Seems rather 'out of it'
 d e
 Has no special friends
 d e
 Timid, easily discouraged, over-sensitive, nervous
 d e
 Not a leader
 d e
 Submissive, easily influenced
 d e

RESPONSE TO AUTHORITY

12. General attitude—
 Co-operates gladly
 a b c
 13. Conformity to rules—
 Rarely breaks rules
 a b c
 14. Emotionality—
 Stable and self-controlled
 a b c
- Disobedient, or seems antagonistic
 d e
 Unpunctual, forgetful, seems unable to conform
 d e
 Causes continual disturbance, noisy, over-active, talkative
 d e

CHAPTER III

THE PROBLEMS AS STATED BY THE GIRLS

I. ANSWERS TO A QUESTIONNAIRE

In each school the following questionnaire was given to all the girls from Lower III or Upper III upwards. The whole school answered it at the same time, in their form rooms with the form mistress in charge. They were allowed to take as long as they liked, up to forty minutes. Slightly different versions of the questionnaire were used in different schools, as the staffs were always asked to suggest improvements in the general wording of the questions, or modifications that would suit the special conditions of the school.

PREFERENCES QUESTIONNAIRE

Answer quite freely (no one but Mrs. Milner will see your answers). If you are not sure about any answer, say so.

Name

Age.....years.....months. Form.....

1. What is your father's occupation?.....
2. How many brothers have you?.....
What are their ages?
3. How many sisters? ...
What are their ages?
4. How many years have you been at this school?.....
5. What school or schools were you at before this one?
.....
6. Do you hold any position such as form captain, mistress, prefect, house captain, or committee member, etc.?

7. Are you in any School or House team for any game?
Say which
8. If you learn any of these, underline them:
cooking, dancing, elocution, piano, violin, 'cello,
riding.
9. Leaving out games, which lesson or lessons do you like
best? Say why if possible.
10. Which lesson or lessons do you like least? Say why if
possible. (If you have now specialized in a few
subjects only, say which you liked least before you
specialized)
11. What do you like best of all the things you do in School?
Can you say why?
12. Are there any subjects you are learning now that you
would like to give up? Say why.
13. Is there anything you would like to learn that you are
not learning now? Say why.. . . .
14. Would you like it better if those who liked could do
something else instead of games, such as some
hobby?..... If so, what would you like to
do in games time?
15. Do you wish that the way things are done in school
were different in any way? If so, how would you
like them changed?
16. Do you often worry about your lessons?
Do you often feel very tired?.....

17. Do you worry about other things? If so, what sort of things?
18. What do you like to do best of all in your spare time, at week-ends and in the holidays?.....
- (a) Underline which of these you like very much and cross out any you dislike:
 gardening, cooking, reading, acting, needlework,
 going to church, babies, animals, writing poetry,
 being by yourself, knitting, parties.
- (b) Have you any special hobbies?.....
 What are they?.....
- (c) Do you like going to the Cinema?..... How often do you go?.....
- (d) Do you belong to Girl Guides or any other social club? Give details
- (e) If you were suddenly told you could have a complete holiday to-day, what would you do?

19. Have you ever been abroad? If so give details.....
20. Are you looking forward to the time when you will leave school? Why or why not?.....
21. What would you like to do when you leave school? If you are considering several things give them all, putting them in order of choice if you can, and giving reasons if possible.
1.
2.
3.
22. If a fairy godmother could grant you three wishes, what would they be? Say why if possible.....
-
-

A large number of the girls had no suggestions to offer for changes in school life, and seemed to be thoroughly enjoying themselves under the present conditions. A certain number wrote that they did not like school life, but they could make no suggestions about how it might be different; while there were others who, although stating that they enjoyed themselves, were able to suggest possible improvements in the system. The following extracts will give an idea of the kind of attitudes and criticisms that the girls at various ages were prepared to put into words. Here again the extracts have not been chosen according to any logical scheme, but simply according to clearness of statement.

Suggestions and Comments from a Sixth Form

- (1.) age 18. Would like less noise when doing exams in the school hall.
- (2.) age 18. Thinks the discipline in the school is not good.
- (3.) age 17. Thinks prizes should be given on whole year's work, not on exam results. Thinks prefects should have some real power. Worries over ignorance of sex.
- (4.) age 19. Would like a quiet period for rest sometime during the day.
- (5.) age 17. Would like to sit where you like at lunch.
- (6.) age 18. Would like to be more free at lunch time.

Another Sixth Form

- (7.) age 17. Would like a freer school, more scope for individual development.
- (8.) age 17. Would like all school work over at five o'clock.
- (9.) age 16. Would like a rule that no preparation was to be done after a certain hour at night.
- (10.) age 16. Wishes that agnostics need not be forced to go to school prayers.

- (11.) age 16. Thinks there are too many competitions, too tiring and one-sided to be always thinking of school. Also, too many regulations.
- (12.) age 16. Thinks that one of the school clubs is too much of a responsibility for its secretary and treasurer.
- (13.) age 16. Thinks the connexion between the staff and girls is too rigid, 'the girls should not imagine that the staff is a kind of goddess'.
- (14.) age 17. Would like lectures on various subjects given by the girls in the higher forms, and would like more clubs, such as a dramatic club.
- (15.) age 17. Wishes it was not compulsory to wear hats. Feels she has been too long a schoolgirl and hates the restrictions.
- (16.) age 16. Disliked Mathematics, because 'To a mind like mine they have no meaning, simple Arithmetic excepted, and I seem incapable of being accurate, even when I know what to do. Also I was taught in a bad atmosphere of talking, etc., and could never work as hard as I should have done.'
- (17.) age 15. Wishes she could learn cooking 'because it is fun; Psychology because it is very interesting, and helpful, and knowing a little is very muddling; Modern History, because I must know it and it is more easily understood if someone tells you'.
- (18.) age 16. 'I should like to use games time partly to go to museums, etc., and fill in school work with a background, and also to practise cookery and handwork.'

Another Sixth Form

- (19.) age 17. (Head Girl). Feels there is not enough time to give to lessons because there are so many other things to be done.

- (20.) age 17. Would like the assignment system in some subjects.
- (21.) age 17. Would like longer than forty-minute periods for lessons, and more time for reading alone before reaching the VI.
- (22.) age 17. Dislikes Geography 'probably because I learnt it on the Dalton Plan'.
- (23.) age 17. Would like to learn Zoology and have a 'science of life'.
- (24.) age 17. Would like to read or debate in games time, would like Latin made much less impersonal.
- (25.) age 16. Would like to learn Astronomy.
- (26.) age 16. Would like more time for individual work in the middle school, 'time to puzzle things out for oneself'.
- (27.) age 16. Would like a better game in school hours than netball, and would like a 'putting on one's honour' system, instead of order marks.
- (28.) age 16. 'I think that senior and junior should know more about each other. At the moment the two are rather far apart and I think it helps to encourage disobedience, especially to prefects. If the juniors knew the seniors better they might be more respectful' . . . 'I don't often worry about things but sometimes they get on my mind, things such as how to deal with disobedient and disrespectful juniors so as not to be domineering, but quite kind.'

From some Upper Fifth Forms

- (1.) age 16. Would like smaller forms with more individual teaching as those who are backward are liable to get behind if there are other girls in the form who are very clever.

- (2.) age 15. Would like preparation arranged differently. 'For Latin we have 50 lines of Virgil to prepare in a 40 minutes' prep. To prepare this thoroughly would take me about $2\frac{1}{2}$ hours. Therefore I do about 30 lines. But some girls, spending a whole evening, manage to do 50 lines. So I feel mean having done only 30 lines.'
- (3.) age 16. Would like more games and gym. Has only once a week lessons in each.
- (4.) age 15. Would like as an optional alternative to games to have some pet animals to look after. Would also like regular afternoon school and much less prep.
- (5.) age 15. Finds she gets 'all hot with gym and can't settle to work again'. Would like reading in the library as an optional alternative to games. Would like more lessons and less 'prep'. 'Not so much left to the pupil.'
- (6.) age 17. Finds that people who are not interested in games spoil it for the others, so would like them to have some alternative occupation.
- (7.) age 16. Would like more individual work, feels she is not progressing, would like 'a teacher that understood me'.
- (8.) age 17. Dislikes History, finds that 'however hard I work I cannot remember hardly a thing, and so I get bad marks'.
- (9.) age 15. Worries over being bullied by a mistress. 'I have been.'
- (10.) age 14. Likes History best 'because it is interesting and the mistress can make us behave'. Would like all the mistresses to be able to keep order.
- (11.) age 15. Wishes the mistresses had more control over the girls. 'Some of them are very rude and do not respect their elders.'

- (12.) age 15. Wishes the prefects weren't such prigs.
- (13.) age 16. Would like 'less subjects but longer ones each night, as you could settle down to them, and this would settle the problem of cases being too heavy to carry'.
- (14.) age 16. Wishes that 'instead of having about four or five subjects to do for homework each night, we could have about two and take much longer over each. There are some things that always take longer to do, and therefore something else has to be rushed.'
- (15.) age 16. 'I dislike being tested often in class on my homework, even if I have learnt it I am afraid I shall do it badly.'
- 'I dislike French most, it is such a finicky language and there are so many catches. I am not very good at remembering words and rules and Miss X gets very annoyed when I forget ones I have had before.'
- Would like to have no marks for lessons.
- (16.) age 16. Wants to give up Latin 'because I can never see the use of it, and I only like learning things which I shall have a use for later on.'
- Would like to see the School Certificate 'abolished or at least made a minor detail, and not to have it rubbed into us every minute.'
- (17.) age 16. Dislikes rules and constant association with other people.
- (18.) age 17. Thinks there is no sense in Physics, cannot grasp it, wishes she had a few more brains.
- (19.) age 15. Wishes the Upper school had more freedom 'as boys' schools do.'
- (20.) age 16. 'When I am going to play games I always think about it the night before, and it is always the first thing I think of when I wake. It is only because I dislike playing so.'

- (21.) age 15. Wishes to be allowed to talk in the corridors.
'I hate being ordered about by a lot of narrow-minded women.'
- (22.) age 15. Would like 'less fuss about School Certificate and more scope for following my own subjects'.
- (23.) age 15. Dislikes Mathematics 'because practically all the homework one has done has to be gone through again on the board, and because a good deal of it is useless'. Also feels that Scripture is 'apt to be boring and every one else makes up their minds that it is going to be boring, so that even if it isn't there is an atmosphere of boredom which makes it impossible to listen'. Likes Guides 'best of everything in school, because one can make friends with girls of all ages'.
- (24.) age 15. Likes Mathematics best 'because if you are bored in a lesson you can always work out a sum'. Likes best 'when we are given something to do and there is no one to interfere, like being given a set of Geometry problems or some experiments to do'. Wishes that 'people didn't dislike you just because you are a Scholar'.
- (25.) age 17. Dislikes Divinity 'because you have to learn the same thing over and over again', dislikes Biology 'because I do not like learning about the insides of animals, etc., because I think of it afterwards, and it seems to make me rather dislike the animal'.

From a Lower Fourth Form

- (1.) age 13. Worries all day if her pets are ill.
Would like a baby to look after.
- (2.) age 13. Would like to drop Science, because she feels it is useless.

- (3.) age 12. Is sure that the French mistress hates her, thinks it is a horrible language, 'I'm sure I'll have nothing to do with it when I leave school.'
- (4.) age 13. Wants to drop French 'because you spend all your childhood learning it, just to go to France once, not worth it'.
- (5.) age 13. Gets into trouble with French, imagines murders from films, wants to leave school, so as not to be treated as a baby, would like to be more developed and grown up 'like other people in the form'.
- (6.) age 13. Worries about her 'periods'. Reads anything connected with hospitals, wants to be a hospital nurse or in a shop.
- (7.) age 12. Is sure the Drawing mistress hates her, wishes they need not have two hours' Drawing at a time.
- (8.) age 12. Would like to be taught by masters, and would like to be working for a living.
- (9.) age 12. Likes Mathematics because there is generally only one answer to the sum.
- (10.) age 13. Looking forward to leaving school, 'so that I could have a go at doing something of my own which was not compulsory'.
- (11.) age 12. Likes Science best 'because one can get up and move about and find things out for oneself, not have things strummed into one's head'.
- (12.) age 12. Worries about 'snappy' mistresses, thinks that 'when they punish you . . . they must forget and be nice again'.

Miscellaneous Comments

- (1.) Up. IV. age 13. Would like to be a prefect but not a form leader, 'because girls don't

- like being ordered about by people of their own age'.
- (2.) L. V. age 15. 'The desire to work is over-ruled by the desire for marks.'
- (3.) L. IV. age 13. 'I do not have a lot of time after school for homework and worry sometimes. As it takes longer than one hour and twenty minutes and if you take longer mistresses are inclined to be fussy and think you have not taken enough time. And yet on the other hand they don't like you to take longer.'
- (4.) L. IV. age 10. Dislikes Physics, sees 'no sense in weighing water'. 'Also it has made possible aeroplanes and accidents.'
- (5.) L. V. age 14. Wishes 'that prefects could keep order better . . . the present lot are not very good, a very brainy lot but they don't say anything'. Wishes there was 'less row at school dinner'.
- (6.) L. V. age 15. 'I worry a lot about games, but I think I am getting better. Last summer I very often couldn't go to sleep for ages at nights, worrying about tennis and my prep.'
- (7.) L. V. age 15. Wishes that gym were more strenuous and more strict.
- (8.) L. V. age 15. Likes a certain lesson best 'because it is interesting and now we have a decent mistress who lets us muck about if we want to, but because she lets us we don't want to.'

The answers to this questionnaire were intended mainly as a basis for the interviews, in order that the experimenter

might know something about each girl beforehand and so save time in the interview. It was thought at first that no great weight could be attached to the answers, since many girls, having no time in which to think over their replies, might answer rather at random. At the interview, however, when they were given the opportunity to alter anything they had written, it was found that very few of them wished to make any alterations.

The table on page 50 (Table IV) gives an idea of the kind of answers given to the questions about worries. It includes all the answers given by all the girls in one school.

Particulars of 'Miscellaneous' Worries

When people are cross.	Upper IIIa
Telling lies.	Lower IVb
Being the eldest in the class and the least brilliant.	Upper IVb
Quarrels.	"
Feels her worries are too ridiculous to mention.	Upper IVa
Life generally.	"
Guide badges.	"
Losing things.	"
Making younger sister go to bed when told to.	Lower Vb
Staying away from school when sister is ill.	"
Doctor, dentist and being late for appointments.	"
Being late.	Lower Va
If she's forgotten to do something she promised to do.	"
Being capable enough to get a job.	"
Gets very depressed.	Upper Vb
Over trying to get many things done in spare time.	Upper Va
Suffering in the world.	"
Worries over trifles.	"

TABLE IV

CLASSIFICATION OF 'WORRIES' MENTIONED IN GIRLS'
QUESTIONNAIRE ANSWERS

	<i>Lessons</i>	<i>Miscellaneous</i>	<i>Family</i>	<i>Exams</i>	<i>Career</i>	<i>Friends</i>	<i>Health</i>	<i>Pets</i>	<i>No Comment</i>	
L. III	2		1					1	2	
{ U. IIIa	5									
{ U. IIIb	6	1	1	1				1		
{ L. IVa	10	1			1				1	
{ L. IVb	4		1					1	3	
{ U. IVa	6	2	3	1		1			3	
{ U. IVb	12	4	4	1		2			1	
{ L. Va	12	3	2	2			1			
{ L. Vb	13	3	2	1	2	1		1		
{ U. V.a	4	1	1		2					
{ U. V.b	8	4	2	1						
L. VI	5	4	1		2					
U. VI	3	2	2	4	1		2			
Totals	90	25	20	11	8	4	3	4	10	175
%	51½	14	11½	6	4½	2	2	2	6	100

Things that go wrong.	Upper Va
'When I try to be better at home and things go against me.'	Lower VI
Things said that afterwards seem silly.	"
Making excuses.	"
Keeping Guide Law.	"
What she would do if parents died.	Upper VI
Appearing conspicuous.	"

2. ANALYSIS OF SUBJECT PREFERENCES

It was the general opinion amongst the staff that the answers about which subjects were liked best and which disliked, would depend very much upon whether the child liked the mistress or not. The following table (Table V) giving the preferences and dislikes from three different schools for the Lower Fourth Forms show that there are certain subjects which are in general more popular than others. For instance, English is almost universally liked, and Mathematics (except in the answers from School I) shows a large proportion of dislikes. If the trends which seemed to be common to all the schools, for the different ages, were analysed, it might be possible to obtain some light on the question of the suitability of present methods of teaching to the needs of different ages. Such a detailed statistical analysis is, however, beyond the scope of this work, and these figures are only given in order to show the kind of data obtained, and how it might be used.

TABLE

NUMBER OF GIRLS LIKING OR DISLIKING SPECIFIED SUBJECTS

<i>School</i>	<i>Likes</i>				
	I	II	III	<i>Total</i>	% ¹
Divinity . .	2	7	3	12	2
English . .	19	20	21	60	10
History . .	12	22	15	49	8½
Geography . .	11	13	5	29	5
French . .	10	9	2	21	3½
Latin . .	8	4	2	14	2½
Algebra . .	6	10	5	21	3½
Geometry . .	6	11	5	22	3½
Arithmetic . .	14	13	9	36	6
Science . .	5	8	1	14	2½
Class Music .	—	—	1	1	—
Class Singing .	2	1	5	8	1½
Drawing . .	8	17	24	49	8½
Gymnasium .	10	10	19	39	6½
<i>School Totals</i> .	113	145	117	375	63½

¹ Per cent of all the opinions expressed.

V

(LOWER FOURTH FORM. THREE SCHOOLS ONLY)

<i>Dislikes</i>					<i>Total expressions of opinion</i>
I	II	III	<i>Total</i>	<i>%¹</i>	
I	I	I	3	$\frac{1}{2}$	15
—	—	2	2	—	62
5	—	2	7	I	56
2	2	6	10	$1\frac{1}{2}$	39
6	15	11	32	$5\frac{1}{2}$	53
8	11	I	20	$3\frac{1}{2}$	34
2	18	18	38	$6\frac{1}{2}$	59
10	20	13	43	$7\frac{1}{2}$	65
3	16	9	28	5	64
I	4	—	5	I	19
—	—	10	10	$1\frac{1}{2}$	11
3	4	I	8	$1\frac{1}{2}$	16
3	4	I	8	$1\frac{1}{2}$	57
—	—	—	—	—	39
44	95	75	214	$36\frac{1}{2}$	589

SECTION II

THE APPLICATION OF PSYCHOLOGICAL
TECHNIQUES OF OBSERVATION
AND MEASUREMENT

CHAPTER I

INTELLIGENCE TESTS AND CLASS OBSERVATION

I. CHOICE OF TEST TO BE USED

THE head mistresses, in outlining this experiment, had already asked that intelligence tests should be used. There were two kinds of tests available—'individual tests', which are applied to one person at a time, and 'group tests', in which a number of people can all perform the test together. Here there were two purposes for which a test score was needed: first, for providing information about the capacities of those individual children selected for study: second, as a means of comparing groups, forms or divisions. Ideally the best instrument to serve the first of these purposes would have been the English revision of the Stanford Binet scale, since an individual test is found to be more reliable than a group test in assessing the actual level of a given person. But since such a test usually takes from forty minutes to an hour to give, it was quite impracticable in an experiment such as this in which there were so many children to be studied. It was therefore decided to use the group test, but to use a special technique, which will be described below, for minimizing its inaccuracies in individual assessment.

The particular test used was the Otis Group Intelligence Scale, Advanced Examination Form A.¹ This was given to all the girls in each school, from Upper III (sometimes Lower III was also included) to the Upper VI. In all schools except one the testing was carried out by the experimenter, usually two or three forms being tested together, according to the size of the room or hall available. In one

¹ Published by George G. Harrap & Co.

A useful description of the nature and content of group tests of this type will be found in *The Nation's Intelligence*, by J. L. Gray. Walls & Co., London, 1936.

school, where no large room was available, two or three members of the staff were coached in the methods of administering the test, so that time might be saved by testing several groups simultaneously. In all testing the procedure followed was strictly in accordance with the Manual of Directions published for use with the scale. Two consecutive lesson periods (of forty minutes each) were allowed for each administration of the test, and this allowed ample margin for the girls to become settled in their places, and also for five minutes' rest pause in the middle of the test.

2. THE INDEX OF BRIGHTNESS

Some method was required for indicating the meaning of any girl's total score obtained in the test as compared with the average score for girls of the same age. Various devices can be used for this purpose but the one chosen here was the Index of Brightness as described in the Manual of Directions. This method consists in taking the difference between a given girl's score and the average score for all others of her exact chronological age, and either adding this to, or subtracting it from 100, according to whether she scores above or below the average. Thus if a girl scores 25 points more than the norm for her age, her Index or Brightness (or I.B.) will be 125, if she scores 25 points less her I.B. will be 75.

The use of this method depends upon the existence of a Table of Norms based upon a very large number of cases. Such a table is published in the Manual of Directions, but they are the American norms. The Table of Norms for English children, based on 10,000 cases, at present only covers the ages 9 years 0 months to 12 years 6 months.¹ As the age range of girls tested in this experiment was

¹ This table can also be used to discover any girl's Mental Age. By looking up her score one can read off the average chronological age of all those who reach the same score. Thus, according to the table, a girl who scores 103 marks in the test has a Mental Age of 12 years 3 months.

roughly from 11 to 18 the American norms had to be used. Actually, comparison between the American norms and the English norms for years 9 to 12 shows a marked discrepancy, the average score for the English twelve-year-old, for instance, being 99 whereas for the American it is 80. This means that all the I.B.s quoted in this book are too high when compared with any I.B.s which have been calculated on the English norms. This did not matter, however, for the purpose of this experiment, since it was sufficient to know a girl's comparative standing only amongst all the girls tested in these schools.

The use of this device of the I.B. made it theoretically possible to compare, for instance, the absolute amount of ability shown by a Sixth Form girl and a Third Form girl. Actually, however, owing to deficiencies in this particular test as an instrument of measurement, the I.B.s for some of the older girls must be an underestimation of the true level of their ability, for the time limits in some of the separate tests were found to be too long, some of the brighter girls finishing well before the time signal.

3. THE STAFFS' EVALUATION OF TEST RESULTS

The results for each form were recorded on a separate sheet of paper, the girls' names being arranged in order of I.B., that is, in order of the absolute amount of 'test-intelligence' shown when age differences had been eliminated. These lists were then put up in the staff room and each member of the staff was asked to scrutinize them and write 'too high' or 'too low' against the name of any girl that she judged to be inappropriately placed. This method was used in order to make the group test results more reliable as measures of the level of ability of individual girls; for it was assumed that there would always be a few girls who could not do themselves justice in a written test with rigid time limits.

In one or two schools a re-test was given to all those girls

marked 'too low' by the staff, the form B of the Otis Advanced Group Intelligence test being used. If any girl showed a marked improvement in the second testing, the second I.B. rather than the first, with a certain correction for practice effect, was used in any subsequent studies of her capacities. If she showed no improvement on the re-test, the staff's judgment of 'too low' (provided there was more than one opinion) was taken as valid, her score being omitted from any subsequent statistical studies of group tendencies, and also noted as an underestimation in any individual study.

TABLE VI

NUMBER OF GIRLS IN ONE SCHOOL MARKED AS
'TOO LOW' BY STAFF

<i>Form</i>	<i>Number in Form</i>	<i>Number marked as 'too low'</i>		
		<i>One Opinion</i>	<i>Two Opinions</i>	<i>Three Opinions</i>
Up. VI .	10	2	—	—
L. V .	18	3	—	—
Up. Va .	21	3	—	—
Up. Vb .	13	—	—	—
L. Va .	23	—	4	—
L. Vb .	24	3	—	—
Up. IVa .	23	—	4	—
Up. IVb .	23	—	—	2
L. IVa .	16	1	—	—
L. IVb .	18	1	—	—
Up. IIIa .	22	1	—	—
Up. IIIb .	23	1	—	—
L. III .	25	4	—	—

Only ten girls out of 236 are marked as 'too low' by more than one member of the staff, while nineteen are marked by one mistress only.

The names of girls marked 'too high' were treated somewhat differently. They were not omitted from statistical studies, for while it is easy to do less than one's best, it is clearly impossible to do better than one's best, if the rules of the test procedure are enforced. The only conclusion possible was that these girls were actually as intelligent as their test scores showed them to be, but that for some reason they were not putting their best into their school work, and so were underestimated by the staff. In the school illustrated in the table there were eight girls marked as 'too high' by one mistress, one girl marked by two mistresses, and one girl marked by three. Naturally the ideas of different members of the staff upon the meaning of 'intelligence' and its relation to achievement in tests played a part in determining these figures.

4. THE GIRLS' VIEWS ON THE TEST

Before each group began the test the girls were told that it was something quite different from a school examination since it depended very little on information acquired in school; also that nothing very terrible would happen to them if they did not do as well in it as they might think they should, but that the results were going to be used partly to compare different forms and different Trust schools. After the test was finished they were asked to write 'Yes' on the back of their booklets if they had enjoyed doing the test, and 'No,' with reasons, if they had not enjoyed it.

The following table shows the number who did not enjoy it in one school, and the reasons given.

TABLE VII
GIRLS' CRITICISM OF THE INTELLIGENCE TEST

<i>Form</i>	<i>No. in Form</i>	<i>No. of 'Yeses'</i>	<i>No. of 'Noes'</i>	<i>Reasons for disliking Test</i>
Up. VI	5	4	1	'It may be useful to you but it's a waste of time to me. I didn't mind doing it though.' (I.B. 195.)
L. VI	32	30	2	'Because I didn't expect it would be like this and I couldn't do it as well as I ought to have done—muddling.' (I.B. 169 marked 'too low' by one member of staff.) 'It was rather <i>too</i> tricky in places.' (I.B. 147 marked 'too low' by two members of staff.)
Up. Va	35	29	6	'No, I don't like answering questions.' (I.B. 143.) 'I did not really enjoy it because we missed gym and part of history which are the best subjects in the week.' (I.B. 116.) 'No, because it's ridiculous and I don't believe in psychology and I know a girl who got ill through it.' (I.B. 183.) 'No, because we missed gym.' (I.B. 187.) 'No, because it tired my brain too much.' (I.B. 172.) 'Not much.' (I.B. 163.)
Up. Vb	15	15	0	
L. Va	33	32	1	'Because I wasn't in the mood and was careless.' (I.B. 155 marked 'too low' by four members of staff.)
L. Vb	27	18	9	'I got fearfully bored. Besides I can't do arithmetic so quickly.' (I.B. 169 marked 'too high' by two members of staff.)

TABLE VII—*continued*

<i>Form</i>	<i>No. in Form</i>	<i>No. of 'Yeses'</i>	<i>No. of 'Noes'</i>	<i>Reasons for disliking Test</i>
				'Because it was limited to time.' (I.B. 161.)
				'Because of the maths.' (I.B. 162.)
				'I liked some of it.' (I.B. 153.)
				'Because of the time limits.' (I.B. 148 marked 'too high' by two members of staff.)
				'Because I always get flustered when I have to do things in a hurry.' (I.B. 147.)
				'Because there was not enough time for the arithmetic and geometry ones and the proverbs were too hard.' (I.B. 139.)
				'I thought it was silly.' (I.B. 133.)
				'It wasn't bad. I would have liked it if we had longer.' (I.B. 106.)
Up. IVa	34	34	0	
Up. IVb	29	28	1	'Too babyish.' (I.B. 108, marked 'too low' by one member of staff.)
L. IV a	26	25	1	'I didn't mind.' (I.B. 209.)
L. IVb	23	23	0	
Up. IIIa	23	23	0	
Up. IIIb	29	24	5	'I'm not sure because some parts of it were nice and some parts were not.' (I.B. 169.)
				'Because it was boring and I've done it before and it was almost the same questions.' (I.B. 141.)
				'Because we did not have enough time and I got too bothered about it.' (I.B. 133.)
				'Because I missed gym.' (I.B. 139.)
				'Not very much because not enough time to answer questions in.' (I.B. 116.)

5. SOME USES OF THE TEST RESULTS

The first use made of these measurements of intelligence was in connexion with the studies of individual girls that will be described in the next chapters. The figure shown on page 66 (Graph I) shows the distribution of I.B.s for all the schools studied and it can be used in connexion with any particular I.B. mentioned in the following chapters, to give an idea of the girl's comparative standing.

The test results were also used in general to consider the problem of what is usually known as 'the B girl,' or the girl who finds academic work very difficult. The school curriculum, for the five years from the Upper Third Form to the Upper Fifth Form, is planned to prepare girls for passing the School Certificate Examination as a minimum goal, and if possible also Matriculation. It was considered useful therefore to try to find out what might be the minimum level of test intelligence for girls who actually obtain their School Certificate. It was found that out of 174 girls taking the examination in the years 1935 and 1936, in seven schools, and omitting those girls whose test score was marked 'too low' by more than one member of the staff, no one succeeded in passing who had an I.B. lower than 120.¹ But the following percentages show the proportion

¹ The examination results for 1937 brought the total figure up to 380, but out of this number there were two girls who passed with I.B.s of only 115 and 116. One of these was taking the examination for the second time. In the next group of results, bringing the total numbers up to 411, there were four girls who passed having I.B.s of 91, 102, 109, 116 respectively. These results were so surprising, in the light of the previous figures, that further inquiry was made. The following facts emerged:

- (i) These four girls were all at one school, in a special form arranged for those who were taking the examination for the second time.
- (ii) There were only ten girls in the form.
- (iii) They had had nine weeks of school work after their first unsuccessful attempt, and during this time they had had fewer lessons per week than formerly, with the exception of Mathematics and French.
- (iv) The staff themselves were exceedingly surprised at the results and remained of the opinion that the test scores were a better

of girls tested in each school, excluding the Sixth Forms, whose I.B. is below 120, again counting only those for whom the staff agree that the I.B. obtained was a fair measure.

<i>School</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>
%	11½	9½	14	19½	19	10	15

These figures are a low estimate of the number of girls in each school whose chances of obtaining the School Certificate, however hard they work, are extremely slight. For actually a large number of girls with I.B.s of over 120 also fail, since the median I.B. for all who took the examination but failed in it is 138.¹ On the other hand, the median I.B. of those who pass is 155, and of those who obtained Matriculation as well is 170. Naturally, there are a great many other factors entering into capacity to pass academic examinations, besides general intellectual capacity: such questions as the establishment of intellectual interests; for instance, will be discussed later in connexion with the interview results. But, using the intelligence tests results only, as above, it is possible to gain some idea of the amount of energy that is being wasted, both by staff and girls,² by trying to prepare certain girls over a period of five years for an examination that they will probably never

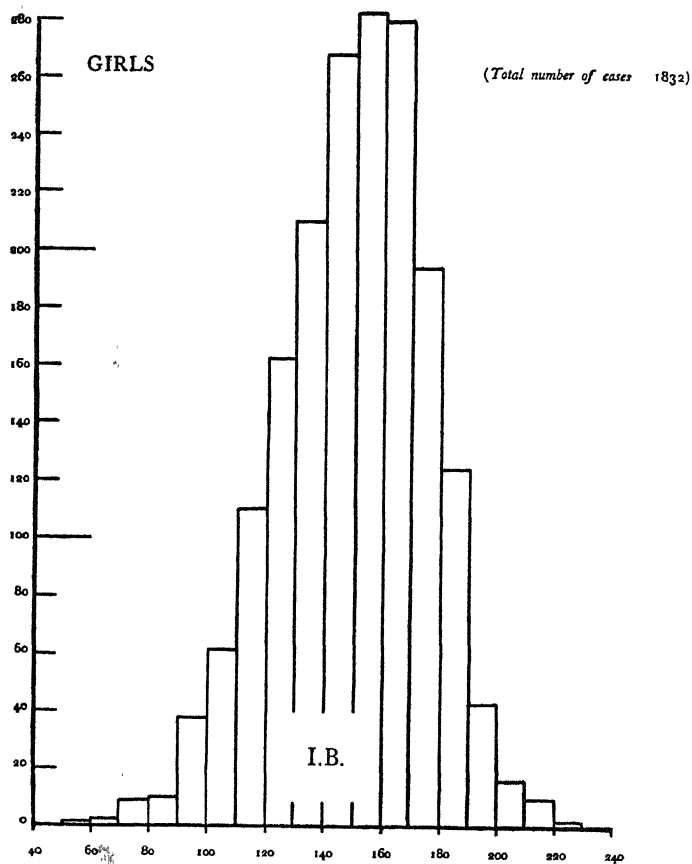
indication of the girls' real ability than the examination results.

Pending the study of further results from those who take the examination a second time, it seems that a partial explanation of these figures can be looked for in such factors as the effect of practice in the examination situation, the known variability of examiners' standards, and the effect of a small class and special attention from the staff.

¹ The median is a measure comparable to the average, and is the score of the middle girl when all are ranked in order of merit.

² Not only a waste of energy, but a false disparagement of their own capacities often results from this state of affairs. For a large number of these girls, although intellectually below average for the school, are normal in intelligence when considered in relation to the whole population. These figures also suggest that the present form of the School Certificate examination is not a suitable measure of achievement for the average girl for whom it is supposed to cater. (See footnote, p. 278, Sect. IV.)

GRAPH I. Distribution of intelligence for all girls tested in seven schools



even take, by work that is quite beyond their intellectual capacity.

Another use of the test results as a whole is in the study of distribution of ability in different forms. For instance, it could be used in connexion with the vexed questions of the A and B Form. Graph II shows the distribution of test intelligence in two parallel forms which have been divided alphabetically without reference to ability, and is typical of the Upper Third Forms in all the schools having unclassified parallel forms. It shows the extremely wide range of ability that the mistresses have to take into account in class teaching.

Graph III shows another pair of forms in a different school in which the division has been made according to ability.

6. CLASS OBSERVATIONS

Studies of the behaviour of a whole form during lesson-time were made by means of a special technique for recording observations. Before attending the lesson the experimenter was given a plan of the desks and the girls' names. The permission of the mistress was always asked before attending a lesson, and the experimenter sat as unobtrusively as possible in a corner, half facing the class. Since many of the schools arranged for students in training to observe classes, the girls were on the whole fairly used to visitors and it was hoped that they would not be too much disturbed by the presence of the experimenter. A special notation was devised so that every response of each girl could be noted with a symbol: for instance:

Q. a question.

A. an answer to a question directed to her personally.

V.A. a volunteered answer following putting up her hand.

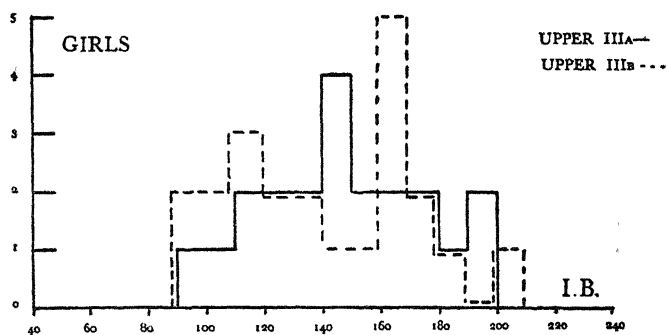
F. failure to answer direct question.

W.A. wrong answer.

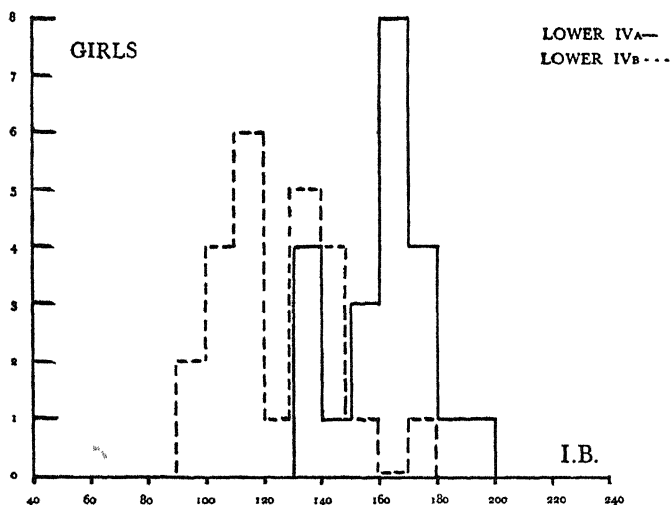
W.A.V. wrong answer volunteered.

and so on.

GRAPH II. Distribution of intelligence in two parallel forms divided alphabetically

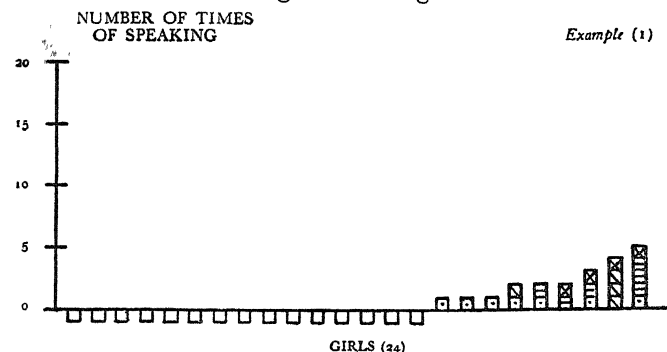


GRAPH III. Distribution of intelligence in two forms divided according to ability



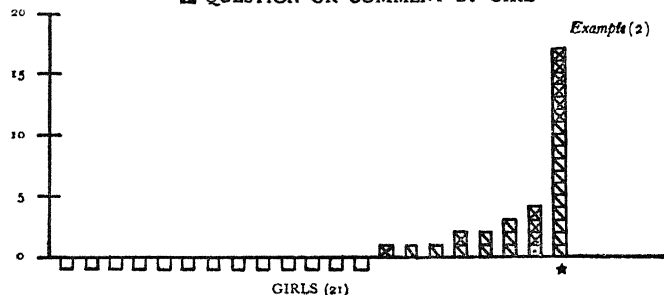
From these studies it was possible to find out which girls took an active part in a lesson, and which tended to remain as passive spectators. The following diagrams show a graphic way of recording the amount of individual activity in any lesson.

GRAPH IV. Records of amount of active part taken by individual girls in a single lesson.



KEY

- SILENT THROUGHOUT LESSON
- ▤ ANSWER TO QUESTION BY NAME
- ▥ WRONG ANSWER
- ▧ VOLUNTARY ANSWER
- ▨ QUESTION OR COMMENT BY GIRL



* This girl was reported 'difficult'.

These records, although providing material for statistical analysis, were not so used in this experiment; they were used rather to help the experimenter to gain some understanding of the give and take of class teaching, and of the responses of individual girls who were on the difficult list. Naturally some of the mistresses found the presence of an observer more embarrassing than others,¹ but there must have been some effect upon all. If generalizations were to be made about class teaching on the basis of such records it would have been necessary to visit each class often enough for the initial embarrassment to wear off and as far as possible natural conditions to return. As there were so many special children to be observed in different forms, there was no time for this, so the experimenter had to be content with gaining some light on individual responses only.

¹ In one or two cases the experimenter promised not to visit a particular mistress's class at all, as she did not seem to relish the idea of it.

CHAPTER II⁴

THE INTERVIEW

I. SELECTION OF GIRLS FOR INTERVIEW

FROM the staffs' lists of girls with any special difficulties about twenty names were selected in each school, those mentioned by two or more mistresses being given preference. (These will be called 'Group D'.) The Head Mistress, in most cases, helped in the final selection of girls to be interviewed. In the later schools visited the staff were also asked to give the names of a few girls in each form who were, in their opinion, making a thoroughly satisfactory adjustment to school life; the selection of a representative satisfactory group was found, however, to be not nearly so easy as the selection of those with difficulties. In the school in which the staff filled up a rating scale for all the children this problem did not arise, since it was easy to select those children who had the highest all-round score; when the rating scale was not used it was found that different members of the staff had very varying ideas about what was meant by 'satisfactory', even when they were asked to judge the children, not according to their fundamental abilities, but according to what use they were making of the abilities they had. However, since the aim of this study was not so much to make statistically valid comparisons, as to make a broad survey of the situation, it was considered that this somewhat rough and ready method of selection was all that could be achieved in the time available, and would serve its purpose sufficiently well. Appointments were usually made through the form mistress, the girls being told, in general, that the aim of the interview was to hear how they felt about their school life and to discuss their further educational plans. In most cases the form captains were seen first, and then one or two of the

'satisfactory', and the girls showing special difficulties. A whole lesson period (forty minutes) was usually allowed for interviews with the latter, while about twenty minutes was allowed for the former, since it was found that those who were getting on well had much less to talk about. The interviewing was carried out in a small private room given up to the purpose.

2. CHOICE OF THE TYPE OF INTERVIEW TO BE USED

(a) *The Vocational Guidance Interview*

Recognized methods for conducting an interview are roughly of two types. The first type considered was that commonly used in Vocational Guidance, which has been described as follows:

The psychologist, unlike the ordinary interviewer, does not trust to casual observation of such of a person's characteristics as happen to obtrude themselves on his attention during a brief and desultory conversation. He approaches the interview with a definite plan of attack. In the first place he draws up a list of the particular tendencies for which he proposes to look. One such list,¹ for example, contains twenty-four qualities, twelve 'primary' and twelve 'secondary'. The first group is based on McDougall's classification of the instincts, and includes submissiveness, fear, assertiveness, sociability, anger, tenderness, cheerfulness, sorrow, sex, disgust, curiosity and acquisitiveness. The second group contains such qualities as self-confidence, initiative, industry, honesty, reliability and co-operative-ness.

In the second place, the psychologist, having mapped out the ground to be covered, devises exploratory questions of a kind likely to elicit the information he requires. Every examiner gradually builds up his own technique of questioning and is continually endeavouring to improve it. The psychological interview is not, however, completely

¹ C. Burt and others: *A Study in Vocational Guidance*, H.M.S.O., London, 1926.

standardized; it is not a rigid questionnaire in oral form. The interviewer is constantly on the watch for clues which may present themselves in the subject's spontaneous remarks, and, if tactfully followed up, may lead to illuminating discoveries. A certain measure of freedom is essential, but haphazard remarks and fruitless digressions are avoided, the conversation being systematically directed towards those topics which experience has shown to be the most useful.¹

One such list, that used by Burt in the study mentioned, included three items that seemed of particular relevance to work in schools:

Response to superiors

„ „ equals
„ „ inferiors

Further, a detailed description of the kind of behaviour to be considered under these headings had been elaborated by Smith and Culpin, in an investigation of the prevalence of nervous symptoms in industry. These descriptions are quoted below very fully, since they show that work in an industrial organization and work in school involve certain very similar problems of social adjustment:

'Reactions to those in authority:

(i) Assuming that the person in authority is reasonable the attitude of different people to authority as such varies within a wide range. Asked how he feels if sent for by his chief, A will describe himself as mildly apprehensive at first, while B will experience interested wonder; C will feel shaky at the knees; D will prepare for a most improbable worst; E will feel he has done something wrong; F will feel all right if he has done something wrong and knows what it is, but apprehensive if innocent. In some of these cases the instinctive fear response seems to be linked to authority as such, and not to be modifiable by experience.

(ii) To be somewhat uneasy when observed at one's work is common, although it is not universal, and some

¹ A. Macrae: *Talents and Temperaments*, Nisbet and Cambridge University Press, 1932.

people even find observation a stimulus. Others, however, experience great discomfort, some maintain the appearance of 'carrying on' easily only by a conscious effort, and a few entirely lose control. The observer is dimly conceived as a potential judge, even if actually without authority or influence. . . .

Reactions to Equals:

How far does he 'readily get in touch with others', 'realize their point of view', 'adapt himself to it', or is he 'shut-in', making no friends and disliking strangers?

Reactions to Subordinates:

Differences of nervous behaviour towards subordinates are easily recognized. Some behave as if the group they control formed in itself a superior of whom they stood in dread, with the result that they have to prove to themselves that they are not afraid, and in so doing assume a blustering or autocratic manner; others show their difficulties in a propitiatory manner expressed in speech, voice or attitude, and worry their subordinates with futile criticism and tactless opposition. . . .

Reactions to Oneself:

The capacity to judge oneself varies greatly. There is at one extreme the person who is never sure he is right; should he be challenged, the challenge will immediately cause doubts to arise, and even the assurance of a competent outsider will fail to carry effective conviction. At the other extreme is the person who is as irrationally sure that he cannot be wrong. He dare not let himself be wrong. The well-adjusted person can see himself in perspective; and, just as he knows there are people who are taller and shorter than himself, so he knows there are people who are either more or less intelligent than himself, and he has no more difficulty in accepting the latter situation than the former.

Attitude to work and conditions:

. . . in others there is an irrational inability to consider a piece of work finished. They take abundant pains when

doing it, finish it with meticulous accuracy and then begin to have doubts about it. . . .

Attitude to more general conditions:

Other fears in disproportionate strength, such as fears associated with the dark, or traffic, or being alone, etc., need not in themselves affect work, but their presence points to emotional difficulties.

Smith and Culpin further report that:

Information with regard to these various attitudes to life was sought from each subject in a personal interview lasting about twenty minutes. A rigid questionnaire was not used, for the variety of symptoms and of their mode of expression is infinite. As the work progressed, however, a general scheme was evolved by which the subject was led through various hypothetical situations described above that would stimulate the symptoms most commonly encountered. If a subject talked easily he was allowed to follow his own path, questions being interpolated either when he stopped or when some point required elucidation. . . .¹

(b) *The Clinical Interview*

The second type of interview is in some respects the direct opposite of the Vocational Guidance type, for in it all preconceived plan is expressly avoided. Originating in the field of medicine and psychopathology, it has been developed for use with normal people in an industrial experiment carried out by the Western Electric Company of Chicago. It is a method which is hinted at in Smith and Culpin's remark that sometimes they did not follow the set plan of questions, for 'If a subject talked easily he was allowed to follow his own path, questions being interpolated either when he stopped or when some point required elucidation.' In the Western Electric experiment, this principle, used in part by Smith and Culpin, became the

¹ M. Smith and M. Culpin, *The Nervous Temperament*, H.M.S.O., London, 1930.

rule; though even here the experimenters began with definite questions in mind, and they tried at first to keep the employees to the point, so that definite answers to these questions could be obtained. It was only after about two months of interviewing experience that the interviewers discovered the need for a change of technique; for they had continually found that the employee had something on *his* mind that overshadowed everything else, and if he was prevented from talking of this, there was a danger of the interview coming to an end. A change in method had therefore been instituted; the interviewers began to follow entirely the topics chosen by the employee, this change being based on the belief that the employee would choose his topics partly in their order of importance for himself.¹

3. RESULTS OF THE TWO TYPES OF INTERVIEW

In order to decide which technique of interview to use in the schools it was necessary to consider the results obtained by these two methods. The first type gives the interviewer information about the person in front of him, information which can achieve a fairly high degree of reliability; for instance, Burt² has shown that different observers can reach high agreement in their independent judgments of the same person, if they have previously become skilled in the use of a schedule of clearly defined qualities, such as described by Macrae, and if they also use a recognized form in recording their judgments. This method does not, however, have any standardized effect on the person interviewed; he may feel pleased at the opportunity to talk about himself, flattered at the interviewers' interest, or uneasy that he has 'given himself away', and resentful of the questions as showing a 'Nosey Parker' attitude on the part of the interviewer; but which of these feelings will predominate depends on

¹ Elton Mayo, *Human Problems of an Industrial Civilization*, The Macmillan Co., 1933.

² Burt and others, *A Study in Vocational Guidance*, H.M.S.O., London, 1926.

circumstances, and no systematic study of these effects has, I think, yet been made. On the other hand, the effect of the clinical interview on the person interviewed has been extensively studied. For instance, in the Western Electric Experiment the original aim of the interview programme had been to find out what the workers particularly disliked in their conditions of work, and so to find out what was interfering with efficiency, in order that conditions might be improved. But after continued experience with the technique of the interview, as finally developed, it was found that, in many cases, when the interviewer had listened to what was on the employee's mind, it was not necessary to take action to alter the conditions which worried him, because, as the Company's report¹ says: 'It is interesting, even if it cannot be fully explained, that such a procedure seems to lead to a change of attitude in the employee.' Mayo adds that, in the skilled interview of this type, the employee, simply in the process of talking, discovers new interpretations for himself. For example, the Company quote an interview in which a girl described privately by her supervisor as a 'problem' case, discovers while she is talking that she dislikes this same supervisor merely because she happens to resemble a hated relative. Results of this kind were naturally difficult to assess, but the Company had no doubts about their value—in fact, they extended the work so that over a period of two years 20,000 interviews of this type were conducted, the average time for each interview being one and a half hours. Supervisors and employees were alike enthusiastic, such remarks as 'This is the best thing the Company ever did' being commonly heard. Actually, these results were not surprising, when considered in the wider context of what had been discovered in psychopathology about the 'clinical interview'; also recent discoveries about ways of thinking in children provided many clues as to what was going on in the uncontrolled thinking

¹ Elton Mayo, *The Human Problems of an Industrial Civilization*, The Macmillan Co., New York, 1933, p. 90.

of adults. This, however, is not the place to discuss the theoretical implications.

4. INTERVIEWING ADOLESCENTS AND PRE-ADOLESCENTS IN SCHOOL

It seemed that the problem facing the investigator in this experiment had both vocational and clinical aspects. Since the general aim of the interviewing was to study the adjustment of schoolgirls to their work and surroundings, it was to be expected that two broad groups of factors must be taken into account: one, the individual capacities and bent of each girl, in relation to the kind of work she was asked to do; second, the way in which she was adjusting herself to this relationship. For the first aspect to be studied the intelligence test was, naturally, the most important instrument, but also some general scheme of the possible range of temperamental qualities, qualities of interest and emotion rather than of intellect, was required. Smith and Culpin's schedule had the advantage of being clear and detailed and having obvious relevance to work in schools as well as in industry; but their method of direct questioning could not be applied as it stood, with such young subjects. Also there were other difficulties of technique, following from the fact that the interviewing was done in the school rather than in a clinic or vocational guidance bureau, difficulties of unavoidable publicity and speculation on the part of the children themselves. Attempts had been made to minimize this by avoiding the use of the word 'psychologist' when the Head Mistress first announced the experiment, calling the work educational rather than psychological research; but naturally this precaution did not go very far, and also there was bound to be plenty of gossip and speculation about who was being interviewed and what was being said. If a standard form of questions had been used, this would gradually have become known by the children comparing notes, and a tendency to 'play up' to the questions might have developed.

On the other hand the use of the clinical interview by itself would have meant that a comprehensive view of the girl's character could not be obtained in the limited time allotted for each girl. A compromise method was therefore adopted, which was a development of Smith and Culpin's hypothetical situations method, but in less verbal and direct terms. A set of about forty picture postcards was prepared, showing different kinds of people in a variety of different situations. When each girl came for her interview it was explained that a study was being made of the 'different kinds of things people are interested in' and she was asked if she would sort the cards into three piles, according to whether she would 'like to be one of the people in the picture, or hate to be, or not mind either way'. When she had done this she was asked to go through the 'likes' pile and the 'dislikes' pile and say why she had placed each card in that particular pile. The reasons were taken down verbatim by the experimenter. With normally adjusted children the whole task took about fifteen minutes, with others it sometimes took longer, occasionally as long as half an hour.

The immediate advantages of this technique are obvious in that a wide range of interests and attitudes, comparable to Smith and Culpin's hypothetical situations, was explored in a minimum time, and, owing to the variety of the material it did not seem probable that a girl would come primed with stock replies to expected questions. Also the girls seemed to find the task interesting to do, especially as it easily related itself to vocational ambitions and plans.

This method had also certain advantages which relate to two questions which were occasionally asked about the advisability and reliability of the interview technique. These questions were, first, would not any attempt to obtain the girls' point of view by means of personal interviews tend to make them too introspective; second, would they be honest in what they said: 'How can you, in fact, know that the girl is telling the truth?' The answer to the first

question depends in part upon the exact meaning of the word introspection. An attempt will be made, in the later chapters of this book, to show how the word applies to different types of character, and how the inward turning impulses of thought can be used and misused. Here it is only necessary to point out that, in the modern world where life is no longer ruled by tradition, adequate self-knowledge is becoming more and more necessary. By encouraging a girl to talk about the situations in which she finds satisfaction and those in which she does not, there is no doubt that she can be helped to discover her true bent and so to choose a suitable occupation and social environment. Actually, it was found that some girls, even those who were nearing the age when a vocational choice would become necessary, were so little practised in reflection that they hardly even knew their own preferences, and much less how to choose a life occupation.¹

The answer to the second question grows largely out of experience of the interview technique. It is found that when a child's confidence has been won, when she feels that she is talking to some one who is genuinely interested in her point of view, and who is not making any attempt to impose authoritative maxims upon her, then she does tell the truth, as far as she is able. And the skilled interviewer knows by the child's manner when this state of confidence has been reached. Naturally, what she says is not even then taken at its face value, the spoken word is only used as an indication of the true nature of the adjustment the child is trying to make to her surroundings. The actual ways in which the responses made in the interview were interpreted will be indicated in the following chapters.

The particular post cards used are listed in the appendix.

¹ The difficulty has been raised that a child may think she would like such and such a situation when in fact she would not like it at all. This is undoubtedly true, but this method is less concerned with what kind of responses she would actually make than with a study of what kind of person she feels herself to be, what aspects of experience she is willing to admit into her consciousness and what aspects she is repudiating.

A similar technique, but with a different range of cards, had been used by the experimenter with fourteen-year-old elementary schoolboys, as part of an experiment in vocational guidance.¹ Experience gained then had indicated the kind of card most useful in evoking characteristic responses, but at that stage no general principle for selection of the cards had been formulated, except that preference was given to situations likely to arouse the more primitive emotional responses. The cards, as offered to the children, were in random order, with no titles, but they are listed here, in the appendix, under descriptive titles which will be used later in describing the results; the actual title and origin of the picture is also given for purposes of identification.

It was found that this method of postcard sorting not only tended to help the child express her general attitudes to life, but also provided terms in which dominant pre-occupations could find expression. These were then considered in the light of whatever could be discovered about her particular situation, both at home and at school, by the ordinary methods of interview. The remainder of the interview was based on the answers to the Preferences Questionnaire, for informal comments were made on what each girl had written and she was invited to elaborate any of this as she felt inclined. Further questions were asked leading to conversation about leisure activities and also the attitude of other members of the family to these and to her vocational plans. Discussion of 'the kind of thing your family is good at', both on the mother's side and the father's, and of which side the girl herself took after most, as compared with any brothers or sisters, usually provoked interest and produced a detached willingness to talk about her own affairs and future plans.

Thus the type of interview chosen may be described as a compromise between the vocational and clinical types

¹ F. M. Earle, *Methods of Choosing a Career*, Harrap & Co., London, 1931.

specially adapted for the age of the children and the time allotted for interviews.

5. A SAMPLE INTERVIEW, USING THE POSTCARD SORTING METHOD

The following summary of data obtained in the interview from a girl of eleven will perhaps give an idea of how the method worked in practice, the answers to the postcards being given in full. This child was put on the 'difficult' list by four members of the staff on account of 'extreme carelessness in work'.

Nellie X.M. Age 11. I.B. between 70 and 80. Form L. III.

Answers on Postcard Sorting

<i>Likes</i>	<i>Reason</i>
Child on Cow	. fun riding on a cow.
Shepherd with Flocks	. country.
Gleaners	. scenery, summer, harvest.
Joan Crawford	. earns a good bit of money, not very pretty but I don't mind that.
Lacrosse	. would like to play hockey, it's healthy jumping.
Her First Dance	. I like to dance about.
Bride and Pages	. because it's such a pretty dress and she looks quite nice.
Ski-ing	. I like climbing.
<i>Dislikes</i>	<i>Reason</i>
Almshouse Garden	it looks like fighting and I don't like the old lady.
The Vigil	. dark and gloomy and too much fighting.
Dying Child	. looks as though some one is going to try and kill this little girl.
Trial Gallop	. going over ponds and mud . . . you never know what horses will do to you.

<i>Dislikes</i>	<i>Reason</i>
Women praying	always wearing the same old dress.
Suggia	don't like the 'cello, it's squeaky.
Release of wounded Prisoner	don't like the look of the dog . . . looks rather poor.
Firemen	I hate seeing sights of fire, horrible, heaths on fire, firemen must swallow a lot of smoke . . . and the pretty little flowers beginning to bud, all burnt down, rather a shame.
Explorers wrecked on an Island	would not like to explore much, you never know what sort of people you are going to find.
Lady Salisbury	I should not like to have that dog very much, it might bite your clothes.
Gipsies	you have to travel about, and if the people are not fond of gipsies they turn you out . . . and they are dirty.
Blind Man's Buff	too much fighting, much too much . . . ooh! it's a game! he might fall in the fire when he is blind-folded.
Ambassador to the Great Mogul	horrible looking black people, this kind always frighten me.
Guests in Dutch House	looks as though they might be very nice and then suddenly turn nasty.

According to these replies she appeared to be interested in country life, games, clothes and so on; but she was also markedly preoccupied with fear of fighting and attack. For instance, she expects people who look nice to turn suddenly nasty, is keenly alive to the dangers of fire, and is liable to think people are fighting when they are doing nothing of the sort. This last point is particularly interesting, for the commonest responses to the card called 'Almshouse Garden' were either—'nice and peaceful' or 'too dull, sad, dreary'. It was remarkable, therefore, to find this child disliking it because 'it looks like fighting'. The only possible source for such an association in the

picture itself seemed to be the fact that amongst the half-dozen figures appearing in it, one is a gardener scything the grass. The interpretation of 'Blind Man's Buff' as 'too much fighting' is easier to understand from the appearance of turmoil in the picture.

These replies were considered first in relation to what the child had written in the Preferences Questionnaire. In answer to the question 'Are you looking forward to the time when you will leave school?' she had written 'I enjoy school life, I don't want to grow up'; when further questioned on this she said that she did not want to grow up because there would be 'too many worries and troubles'. She wrote also that she did not want anything changed in school, 'I like things as they are'; in answer to the question about worries in school she had written 'I worry about French'; she also put that she liked French least of all her lessons, and when questioned about it said, 'We've a rather strict mistress, she's rather funny tempered, she marks untidily and I want to keep it neat.' She also wrote 'I do not worry about anything away from school, it is only French I cannot do.' She liked Geography best of all her lessons, and loved Music, and she was having piano lessons outside school; on leaving school she wanted to teach either Geography or Music. In general, her answers here were typical for her age, there was nothing very remarkable about them, and they provided no clue as to the reason for the extreme carelessness reported by the staff. In fact, the only indication of any difficulty at all was her dislike of the idea of growing up, an attitude which was also hinted at in the fact that she said her favourite book was *Peter Pan in Kensington Gardens*; (instead of 'Kensington' Gardens she had actually put, by mistake, the name of the gardens where she herself lived).

She was then encouraged to talk about her home life;¹ she reported that she had one older sister, over twenty, who

¹ In quoting all material relating to home circumstances I have made certain alterations so that the particular family cannot be identified, although I have not altered the general nature of the problem to be illustrated.

teased her; that her step-father was in business and had no time for hobbies—‘though the doctor thinks he should’; that she herself had been ill lately, and ‘Daddy always gets ill at the same time, and it’s a drag on Mummy, we both want her’. She then said that her mother thought her too sensitive, and when asked why, told how she had cried at many pantomimes, and, after seeing a pantomime had felt the witch would put hands on her in bed, so had hidden under the bedclothes—‘and now Mummy comes in to sleep with me’.

Taken in conjunction with the Postcard Sorting answers, it seemed that this was an occasion on which it was essential to see the parent. Accordingly the mother was asked to come for an interview, during the course of which the following facts emerged. First, there was not at all a happy relationship between the child’s step-father and her mother; second, that the child had been present at many of their disputes; third, that the child was jealous of the step-father, who himself tried to behave as a baby and would never let the mother out of his sight. The mother added that she thought the child was ‘born jealous’ and that she had been unpopular at school, because she was a ‘fidgety fussy type, not sporting, and wanting a lot of praise’. She was an unwanted baby, had developed ‘terrible food fads’, and been very spoilt by her own father, up to the age of five, when he died.

I have quoted this material resulting from the interview at some length in order to show how the answers from the Postcard Sorting often had to be followed up with further inquiries. In this case there seemed no doubt that the fears revealed by the postcards were directly expressing the child’s sense of insecurity at home, aroused both by the mother’s and the father’s attitudes, combined with the fact that the child was well below average in intelligence and so unable to compensate by finding a sense of security in achievement in her school work. As she was quick in manner and fluent in speech, she had apparently developed

the habit of trying to deal with difficulties by skating over them—hence, apparently, her extreme carelessness in work; an example of a similar mechanism was, in fact, shown during the interview, when a Free Association Test¹ was given; for she had then answered each stimulus word pat off, even those that touched closely on her particular fears and worries—but her answers were so quick and irrelevant that it was clear she had not even stopped to take in the meaning of the stimulus word.

Since it was impossible, except perhaps by repeated visits of a social worker to the home, to ease the situation there, the only thing that could be done was to lighten the demands at school. The methods for doing this will be discussed in connexion with the problems of the 'B' Form.

¹ A previously prepared list of words is read out, and the child is asked to say, after each word, whatever other word comes into her mind.

CHAPTER III

WAYS OF INTERPRETING THE CASE MATERIAL

I. THE SEARCH FOR TERMS

WHEN this experiment was first planned the Education Committee of the Trust were anxious that the work should not be confined to attempts to help individual difficult children, but that its wider implications should also be studied. This meant that attention during the interview had to be concentrated on looking for the facts more than on attempts to suggest remedies. No attempt was made to give the girls advice, except in one or two instances, or when it was definitely asked for by the girl herself; also the staff were warned not to expect any improvement in a girl's behaviour after the interview, as no remedial treatment was being attempted. Actually, the mere fact of being listened to did sometimes produce an improvement in behaviour, even though the time available for 'listening' was much more limited than for instance in the Western Electric experiment. Occasionally the girl's behaviour was actually worse after the interview.

The results of the study of each girl in Group 'D' were reported, individually, if possible, to the form mistress, and collectively at a general staff meeting. If there were any obvious suggestions for treatment of a particular girl, these were mentioned, but the chief aim in reporting upon the cases was to illustrate the general method of the psychological approach to such problems.

In order to achieve this end it was necessary to devise some system in which the results could be expressed without involving too many technicalities that would be cumbrous for those who are not specially trained as psychologists.

The requirements of such a system were considered to be

two-fold: it should provide terms in which the staffs themselves could readily systematize their own knowledge of individual children both in respect of environmental influences, such as the demands of school life, home circumstances, past history, and so on, and also in respect of individual differences in capacity, temperament and 'bent'. With this in mind the case-material from Group 'D' was summarized in terms of the interplay of four different groups of factors:

- (1) Home circumstances and past history.
- (2) The school curriculum.
- (3) General intelligence as measured by tests.
- (4) Temperament, including special gifts.

This grouping was intended to cover the main factors determining the girl's behaviour, but there were two serious omissions due to the limitations of the experiment: physiological condition and educational achievements. It was impossible to study physiological condition without a medical examination, since the information given by the children themselves was naturally very meagre, and in most cases very little help was obtained from the records of examination by the school doctor;¹ when an interview with the parents took place the main facts of the child's medical history were asked for, but it was not possible to see all the parents. As for the girl's educational attainments, it was considered best to give no attainments tests, but to use the time in studying those factors in the child's 'total situation' which were less familiar to the staff, but possibly no less important in determining her achievements and behaviour. Obviously, the amount of information obtained about each girl was very scanty and superficial, as compared, for instance, with that obtained in a Child Guidance Clinic. In order to produce an accurate picture of the causal factors underlying many of the difficulties

¹ In one or two schools it was possible to have a talk with the school doctor about the children interviewed, and this was very helpful.

reported upon in school, it would have been necessary to make a far more detailed study of the home and past history. In this experiment, however, the aim was not to usurp the functions of the Child Guidance Clinic, but to find out what could be done to ease difficulties within the school itself, and in the ordinary routine of school life. In fact, the data obtained about each child were often hardly more than were available to inquiring members of the staff in the usual course of events. For instance, the Postcard Sorting provided in concentrated form information about the child's interests which would also appear in essays, casual talks, and so on; the information about the home was often no more than was already known to the Head Mistress herself, or to some members of her staff, and the intelligence test used was one which the staff themselves could easily give and score. The only kind of information available for the experimenter and not on the whole available to any mistress who was interested to look for it, consisted perhaps in remarks about personal difficulties in getting on with members of the staff, which would naturally be more easily made to a complete outsider; but even here it was often apparent that members of the staff were quite well aware of these personal incompatibilities, even if they had not heard them so explicitly expressed. Actually, it was in connexion with this problem of how to report the results of the interviews, that ideas upon what should be the function of the psychologist within the school began to be developed. Thus it appeared that, in the present state of affairs, there was less need for an outsider to come in and study the children by the use of technical methods only available for the trained psychologist, than for the development of methods by which the staff could use information already in their possession. This matter is more fully discussed later, but is mentioned here to explain how the method of reporting upon the cases developed.

The following is a list of all the kinds of data upon which the summaries of the cases were based:

1. 'Index of Brightness' calculated on the basis of the score from the Otis Advanced Group Intelligence test, Form A, using the American norms given in the Otis Handbook.

2. A few phrases describing the child's characteristic behaviour, given by the mistress who placed her on the 'difficult' list.

(In one school only, a detailed rating scale filled up by the staff for every child.)

3. The Preferences Questionnaire filled up by the child herself.

4. An essay entitled 'The most vivid day-dreams I have ever had'. In some schools this was given as an ordinary essay, to be handed in to the English mistress, because the mistress preferred that, but, whenever possible, it was given as a special essay to be handed direct to the experimenter.

5. The answers obtained in the Postcard Sorting.

6. The broad facts about the home situation, obtained partly from the Head Mistress, partly from the child during the interview, and, in some of the cases, from an interview with one or both parents.

7. Observations of the child's behaviour in one or more lessons.

8. Observation of the child's manner and attitude during the interview and of her spontaneous comments and the topics she chose to talk about.

2. THEORETICAL BASIS FOR INTERPRETATION OF CASE MATERIAL

Any explanation of the actual use of the fourfold grouping of factors given above requires mention of two general principles. The first of these has to do with the question of causality in human behaviour; gradually, as a result of the experimental and field work of recent years, the psychologist's attitude to the problem of cause and effect in behaviour has undergone a change. It is now not considered sufficient to find a single cause for any kind of behaviour, because we now regard mental life as being a whole, and believe that living creatures always respond to a 'total situation'. This means that what determines any kind of

behaviour is always a multiplicity of causes, what Burt called 'multiple determination', and also that these different factors are mutually dependent.

The second general principle is concerned with the way in which the different factors or 'causes' interact. Briefly, it can be stated as the principle of compensation. Just as the body has imperative needs, the need for food, shelter, exercise, and so on, so the mind has imperative needs, for affection, for a sense of achievement, for new experience, for security. If the environment is such that one of these needs is not adequately fulfilled then compensation is sought, not deliberately and consciously, but automatically and inevitably, just as steam escapes from a kettle. And just as the diet of the body must be well balanced, so must the diet of the mind. For instance, if a doting mother (see Susan E. H. page 154) overdoes the expression of affection, in the way of doing too much for her child, making everything too easy, this often has the effect of starving the child's sense of achievement; or the sense of achievement may be starved in the opposite way, by making things too difficult and expecting too much of a child. In both cases there is nature's attempt to restore the balance, expressed in such ways as defiance, noisiness, refusal to eat, tempers, showing off, or day-dreams of great and violent achievement, depending on the particular age and circumstances of the child, but all having the effect of giving a compensatory, if illusory, sense of achievement and power. In short, it seems that we all need a minimum amount of feeling safe, of feeling important, of loving and being loved, and of achieving; and if we cannot get it in direct ways we will get it in roundabout ways.

3. NEED FOR A WORKING CHART OF INDIVIDUAL DIFFERENCES

These two general principles of how the environment affects behaviour cannot be applied, however, in any

particular case without some additional understanding of individual differences in character, temperament or personality. In the last twenty or thirty years there have been innumerable attempts to find ways of measuring and classifying these differences, and there are still a great variety of methods of approach to the problem, not one of them being generally accepted as completely satisfactory.

One of these, the method used in the vocational guidance interview, has already been described, and also an example of a schedule of character qualities has been shown, as used in the first school in this experiment. As the work proceeded, however, it was felt that some scheme was needed for use in schools which would embody a less static approach to the problems of personality than that usually implied in any list of character qualities. The following quotation is a summary of the most recent conclusions in this field and indicates the problems that must be faced in any attempt to put the study of individual differences in personality upon a scientific basis:

1. The isolation and measurement of the single habits, traits or capacities within personality give an incomplete and frequently misleading picture. It is evident that in some fashion, though we do not know how, the significance of these single factors is dependent upon the *total personality* in which they are set.

2. Unfortunately for science, the total personality which contains these elements is a *unique system*. Since one unique system is never strictly comparable with any other unique system, it is difficult to see how the total personality can be studied by the method of measurement.

3. If measurement is to be employed at all, and if at the same time the really significant levels of personality are to be approached, the investigator must find within a personality *broad* functions that are *common* to all other personalities.¹

The authors go on to say that the exact nature of these

¹ P. E. Vernon and G. W. Allport, *Journal of Abnormal and Social Psychology*, 1932, Vol. XXVI, p. 231.

broad functions is still a matter for experiment to determine. They have, however, attempted such an experiment themselves, making use of an analysis put forward by Eduard Spranger, in which six 'types' were distinguished, according to a person's feeling of what is most valuable in life. These were:

theoretic	social
aesthetic	political
economic	religious

They have then devised a questionnaire on opinions and attitudes, embodying what should be the characteristic responses of each 'type' and applied it to a large number of adults, including different professional groups. After careful statistical analysis they conclude that:

The results indicate that Spranger is on the whole justified in regarding these values as constituting generalized motives in men, and that the test succeeds in determining with some precision the prominence of each value in any single individual.

Although Spranger's analysis was difficult to apply in a study of children it did suggest general lines upon which the material obtained about each child might be classified. For instance, a classification in terms of the kind of relationship to the environment that a child seemed most interested in was an obvious method of summarizing the replies in the Postcard Sorting.

As soon as it had been decided that the classification could most usefully be made in terms of preferred relations to the environment it became clear that there were several other descriptive classifications of individual differences which could be made use of. Pre-eminently, there was Jung's distinction between the outward and inward direction of interest, and his further distinction between interest in physical experience, in feeling, and in knowing, whether intuitively or intellectually.¹ Jung's descriptions of these

¹ C. G. Jung, *Psychological Types*, Kegan Paul, London, 1923.

differences, however, are based on intensive studies of adult patients in the psychotherapeutic interview, and before attempting to apply them to the study of the normal child, it was necessary to take into account the main trend of researches in the field of normal child psychology.

4. INTERPRETATION IN TERMS OF MENTAL GROWTH

When considering how far Jung's penetrating descriptions of individual differences in temperament could be applied to the problems of education, one fact stood out particularly clearly: that is, that child psychology is essentially concerned with the concept of growth, and that this concept is not incorporated in Jung's classification, probably in part because he was dealing with adult patients. But Susan Isaacs writes, in a summary of the recent advances in Child Psychology:

1. By its study of the influence of given modes of education upon given children, the science of child development has made many contributions to the proximate aims of education at different periods of growth. . . . The study of child development has, however, contributed more than a series of particular changes in the immediate aims of education. It offers to the educational philosopher a new concept of his fundamental purpose, namely, that of *optimal growth*. It seeks to discover the conditions of bodily and mental environment in which the child can at each successive age attain an optimal growth in all aspects of his being—whether his understanding of the physical world, his social relations with other human beings, his inner psychic harmony or the general health of his body and mind.¹

Susan Isaacs then goes on to describe the characteristics of the various stages of development from infancy to late adolescence, and, since the scheme used here was in part

¹ Susan Isaacs, *The Psychological Aspects of Child Development*, Evans Bros., London, 1935.

based on her summary its main points are quoted below. At the outset, however, she gives a warning against taking the idea of 'stages' too literally.

. . . The question of the successive phases of development from birth to maturity does not now take the form of the old 'stratographical' theory. The notion that development can be divided into a series of distinct 'stages', such as 'the age of sense perception', of 'motor development', of 'imagination', of 'reason', is far too simple to fit the facts, although it contains elements of truth.

5. STAGES OF DEVELOPMENT FROM BIRTH TO ADOLESCENCE

Stage I

Infancy (from birth to the end of the first year)

She describes this as 'bounded by the mastery of certain fundamental skills effecting a more marked change in the child's mode of life than occurs at any other time'. These are:

- (i) weaning and adaptation to a solid diet.
- (ii) walking.
- (iii) speech.

Stage II

Early Childhood (from one to five)

Here overwhelming instinctual drives of bodily love and aggression, with intense and conflicting emotions, are directed mainly towards the parents, other children being felt mainly as rivals.

The great stress of feeling of this period is partly dealt with by phantasy and dramatic play; adaptation to the real world grows through the increased mastery of bodily skills, language, and increasing concrete knowledge of the physical world and the behaviour of people.

*Stage III**Later Childhood (from five to twelve)*

Here emotional satisfaction begins to be sought mainly from other children. A marked increase occurs in social feeling and the possibility of co-operating with equals. A turning away from phantasy to real achievement and knowledge of the real world leads to considerable increase in manipulative and linguistic skill and in the practical understanding of physical causality. All intellectual activities are closely correlated. . . . The verbal formulation of experience and verbal reasoning in concrete terms increase apace.

*Stage IV**Early Adolescence (from thirteen to sixteen)*

With rapid physical growth and the development of the secondary sex characters comes an increase in emotional instability, with a loss of the emotional adjustments achieved earlier, and a return to some of the earlier conflicts.

There is a growth in group feeling, but with a new orientation towards the adult world. . . . Interests begin to approximate to those of the adult world, and the ability to reason in words and to master the more abstract relations develops more fully.

*Stage V**Later Adolescence*

Here, apart from the emotional instability arising from the conjunction of physical reproductive maturity with social and emotional immaturity, the main characteristic is that:

the upper limit of the maturation of intelligence and an adult level of verbal logic are reached, but it is some years before these operate effectively to achieve a new and stable integration of behaviour.

Susan Isaacs has said that the concept of distinct 'stages' is far too simple, and she adds:

Systematic observations of young children in a natural environment . . . have all converged to demonstrate (a) that intellectual development is continuous throughout; and (b) that learning has essentially the same character at all ages.

Yet it is clear from her account that certain marked differences of emphasis can be detected. Thus the following main characteristics of each stage seem to emerge from her summary:

- Infancy: concerned primarily with the development of certain fundamental *bodily skills*.
- Early Childhood: primarily concerned with intense and conflicting *emotions*, the stress of *feeling* and *phantasy*.
- Later Childhood: primarily concerned with *co-operation* and a turning from phantasy to real *achievement, knowledge* of the real world, manipulative and linguistic *skills*, practical *understanding*, growth of verbal *formulation* of experience, and verbal *reasoning in concrete terms*.
- Early Adolescence: apart from the set-back in emotional stability, there is a new orientation to the adult world, with *ability to reason in words* and development of capacity to master the more *abstract relations*.
- Later Adolescence: increase in the problems of control of the emotional life combined with attainment of an adult level of *verbal logic*.

This analysis gives a picture of the emphasis gradually shifting, first from a dominant concern with bodily problems to more emotional ones, then to interest in knowing experience, rather than merely feeling it—knowing it first in

concrete terms, and finally in its more abstract relations. In each successive phase the preceding interests are included, but something is added to them.

It will be seen that the activities mentioned in these successive phases of growth might also be stated in terms of Jung's four functions; sensation, feeling, intuition, and thinking. What has been added is the idea that these functions form a hierarchy,¹ gradually building up from simple bodily experience to a complex integration of experiences reaching far beyond the present moment of sensation.

6. COMPARISON OF THE INTERESTS SHOWN BY TWO FIFTEEN-YEAR-OLDS

The bearing of this description of early phases of development upon the problems of the adolescent may not at first glance be apparent; but its relevance was soon forced on the attention of the experimenter, as a result, for instance, of some of the replies on the Postcard Sorting, and the Preferences Questionnaire. For it appeared that there was a marked difference between the children in their relative emphasis on purely physical experiences or on feelings and social responses. Compare for instance, the following verbatim replies to the postcards, given by two girls of equal test intelligence (both well below average) and only six months difference in age, both from the 'D' group:

Letitia (X.G.) Age 15.0 I.B. between 100 and 110.
Form L.V. reported because of antagonistic attitude,
indolence, etc.

<i>Likes</i>	<i>Reason</i>
Ski-ing	games.
Children drawing	drawing.
Lacrosse	games.
Girl playing Organ	I'd like to play.

¹ This idea that Jung's four functions should be considered in terms of levels, or stages of development as observed in children, has been also put forward by others as a direct result of therapeutic work with difficult children.

<i>Dislikes</i>	<i>Reason</i>
Gipsies . . .	I don't like the life.
Fishermen at Sea . . .	don't like the sea, I'm sea-sick—and I won't swim in it, afraid I'd get carried away.
The Vigil . . .	it's pointless, I don't see what there is in it.
Death of Arthur . . .	would not like to see anybody die there.
Girl lying on Beach	boring job combing hair—and I'd like to comb my own.
Woman reading . . .	I dislike reading.
Lady Salisbury . . .	you can't move, dressed up like that.
Blind Man's Buff . . .	They are mostly blind aren't they? Oh, if they are not, I shouldn't mind being there.
Almshouse Garden	shouldn't like to be a nun—you can't do anything.
Washing Day . . .	don't like washing.
Women praying . . .	wouldn't do that myself, it's only for old people.
Dying Child . . .	shouldn't mind nursing her.
Hoorn Church . . .	dull in there.
Suggia . . .	horrid noise, the 'cello or violin played alone.
Release of wounded Prisoner . . .	going back wounded.
Woman making Bread . . .	if cooking, then I like it.

Laura (X.C.) Age 14+ I.B. between 100 and 110. Form
L.IV, reported as 'aloof, unconcentrated, supercilious atti-
tude to school work'.

<i>Likes</i>	<i>Reason</i>
Lady Salisbury . . .	peaceful.
Hoorn Church . . .	beautiful.
Trial Gallop . . .	life in it.
Ski-ing . . .	beautiful scenery.
Moonrise on the Yare . . .	peaceful looking.

*Likes**Reason*

Gleaners . . .	I love the country.
Fishermen . . .	the sea.
Woman reading . . .	reading and she has a nice face.
Children drawing . . .	intent upon what they are doing.
Child on Cow . . .	I like the look of the little boy's face.
Almshouse Garden.	scenery.
Guests in Dutch House . . .	old-fashioned place.
Horse Fair . . .	everything tearing about.
Girl playing Organ . . .	sun streaming in, lovely picture.
Death of Arthur . . .	loved the Morte D'Arthur.
The Vigil . . .	peaceful and still.
Dying Child . . .	the little girl is sweet.
Mother and Child . . .	I love the baby, I'd like to be that.
Dutch Woman making Bread . . .	I like the work she is doing.

*Dislikes**Reason*

Joan Crawford . . .	horrid nasty sort of girl, so silly, nothing in it.
---------------------	--

Clearly Laura is more interested in complex feelings; the answers—'peaceful', 'beautiful', 'everything tearing about', 'intent on what they are doing', 'life in it', 'the look on the little boy's face', all suggest a much more complex relation to the environment than Letitia's simple statements that she likes games and drawing and would like to play the organ. Laura is obviously interested in that verbal formulation of experience that Susan Isaacs says develops pre-eminently in the period of later childhood, but has not reached the interest in more abstract relations that belongs particularly to early adolescence; or at least, it appears she has not, for the staff complain that she takes little interest in any of her school work, except English and History. Of all the things she does in school, she likes best 'being with my friends', as compared with Letitia, who likes 'games' best; and Laura's ambition is to write children's books, whereas Letitia's is to be a games mistress. Laura's

favourite reading (so she says) is 'Shakespeare', while Letitia has no favourite book because she never reads at all. Letitia is in all the school teams, Laura is in none of them: and Letitia likes Mathematics best of all her lessons (although she is not at all good at it, according to her form mistress) whereas Laura dislikes it most of all.

Contrasts of this kind suggested that individuals, all of whom had approximately reached physical adolescence, might vary greatly in the phase of development at which their mental life was centred. The concept of an emotional mental age inevitably suggested itself, to be used as referring to the characteristic phase or level at which a person's spontaneous interests are centred, to describe the kind of things she likes to do, as opposed to what she can do when necessity demands it of her.

CHAPTER IV

A CHART FOR THE CLASSIFICATION OF INTERESTS

It was in order to have some manageable form in which to think about data of this kind, in relation both to the facts of development described by Susan Isaacs, and to such observations of type differences in adults as those of Jung and Spranger, that the chart on p. 103 was devised. The various headings are explained below, with preliminary illustrations from case material.

I. INTEREST IN PHYSICAL EXPERIENCE

At the bottom, not with any derogatory intent, but simply because it is the basis of development chronologically, was placed 'interest in physical experience'. But, bearing in mind Jung's distinction between the inward and the outward turning interests, interest in physical experience was subdivided; the descriptive words 'receptive' and 'expressive' were tentatively chosen to indicate this distinction, partly in order to avoid the problems of technical definition involved in Jung's terms 'introverted' and 'extraverted.' The words 'passive' and 'active' might have been used, but the word 'passive' has a slightly negative flavour which to some carries the unwarranted implication that the inward turning experiences are not as real and vital as the outward turning. Certainly the distinction between these two kinds of experience, physically expressive and physically receptive, appears to an outside observer to be a difference between activity and passivity, for a person who is enjoying sensations of warmth, soft cushions, a full stomach, resting muscles, and the like, seems to be doing nothing as compared with the person who is running, jumping, walking, sewing. Yet what appears to be passivity is only passivity of

TABLE VIII

CLASSIFICATION OF INTERESTS ACCORDING TO ASPECTS
OF EXPERIENCEINWARD TURNING OUTWARD TURNING
INTEREST IN KNOWING*(a) In general terms*

Intellect turned inwards (constructive, reflective, implicit)	Intellect turned outwards (critical, analytic, objective, explicit)
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(b) In particular terms

Intuition of inner life (awareness of own im- pulses in terms of a personal imaginative symbolism)	Intuition of outer world (flair, horse sense, savoir faire, expressive action)
--	--

INTEREST IN EMOTIONAL EXPERIENCE

Submissive relationships (interest in dependence)	Assertive relationships (interest in power)
--	--

INTEREST IN PHYSICAL EXPERIENCE

Receptive (interest in comfort, rest, luxury)	Expressive (interest in muscular activity)
---	--

the voluntary muscles of the body; the involuntary processes, of digestion, of building up the reserves of energy in the muscles, and so on, are often very active. Actually this distinction was made, not on theoretical grounds but because a marked difference was found amongst the girls in their attitude to physically receptive experiences. For example, amongst the responses to the picture called here 'Boy lying in the Sun' two distinct groups could be distinguished. The following are typical of the first group:

nice and sunny and nothing to do
 like to be out in the open like that
 looks so nice lying in grass and blue sky
 lying down in the sun
 like the sun beating down on you
 lovely lazy time and country when it's quiet
 lovely and peaceful
 I like being lazy occasionally.

Those in the second group said:

seems so lazy doing nothing
 too lazy, like to be hopping around
 looks as though he's going to die any minute
 a lazy life
 lazing about
 just lying there in the sun, like something to do really
 lying still all day.

It seemed then, that for some of the children the idea of the outer conditions of physical receptivity, the idea of lying still, and doing nothing, was not interesting, they felt its passivity to be a negative thing.¹

Under the heading of physically expressive experiences were classed all voluntary muscular activities, beginning with the random impulsive movements of babyhood and leading right on through all the varieties of directed muscular activity and bodily skills. And just as there were children who showed no interest in being physically unoccupied, so there were, though much less frequently, children who disliked muscular activity of various kinds. Actually in the series of postcards used there were none which depicted pure muscular activity without other associations, such as, for example, the competitive excitement of games, the danger or daring of bodily achievements, or artistic and expressive skill. But it was possible sometimes to isolate a common factor of bodily activity amongst the

¹ The influence of age is probably important here. See footnote. p. 203.

activities disliked; for example Sally (D.U.) aged fifteen (I.B. between 170 and 180) likes Mathematics best of all her lessons 'because you have to use your brains and not your hands', and likes Drawing and Needlework least, 'because I do not like any sort of handwork'. She wants to give up learning Biology because it involves drawing, and when asked to draw a person she found it quite impossible to draw a single line. Of the eight postcards in her 'like' pile, none involved muscular activity, and in the 'dislike' pile she put:

Her First Dance . I don't like dancing I feel so self-conscious and clumsy.
 Lacrosse . . . don't like sport.
 Trial Gallop . . . don't like sport.

Naturally, dislike of doing nothing is a simpler attitude to investigate than dislike of muscular activity, because there are so many kinds of activity to dislike; so Catherine (P.P.) aged eighteen, says:

Lacrosse . . . I can't imagine anything I'd loathe worse, I played it for four years, I can't bear games, I can't bear the brawny kind of person one plays with.

Also Norah (X.R.) aged fourteen (I.B. between 150 and 160) reported by staff for 'indifference, disobedience', and being 'bad at all physical work', says she dislikes 'the apparatus part in Gym', she gave up Netball 'because it is a cold game' and says in the Postcard Sorting:

Blind Man's Buff . running about, don't like it, would feel miserable.

Such remarks as these, were, however, exceptional, the great majority of the girls seemed to enjoy most kinds of physical activity, while a smaller proportion also enjoyed physical quietness.

2. INTEREST IN EMOTIONAL EXPERIENCE

The next stage shown on the chart, interest in emotional experience, is also divided into two—'submissive' and 'assertive', partly following Jung, partly following Burt's¹ statistical study of character ratings, in which he finds that emotional qualities fall into two distinct groups—for which he uses the terms 'asthenic' and 'sthenic'. In the asthenic group are what he calls the inhibiting emotions: fear, sorrow, submission, disgust; and in the sthenic group are the aggressive emotions: anger, self-assertion, curiosity, sex, and the like. Actually, experience suggests that the last mentioned quality in each of these two groups cannot be so simply classified, for disgust has usually an aggressive component, while sex emotion is surely only an aggressive emotion in the male, in the normal female it is submissive. But apart from this, the basic distinction between submissive and assertive emotions seems fundamental and has emerged from a variety of different studies.

A word is necessary on the subject of definition of the two terms 'feeling' and 'emotion'. Jung uses the term 'feeling' for one of the basic functions of the mind and describes it as a sense of liking or disliking something, or as a general mood of accepting or rejecting the whole conscious situation of the moment.² When feeling becomes intense, he says, then certain marked bodily changes occur, and for this state he uses the word 'emotion'. Here I have thought it more convenient to use the word *emotion* rather than the word *feeling* to describe the whole function. I have done this because the word feeling is used in ordinary speech to refer to a very wide range of experiences—one can feel a drop of rain, or an impulse of anger, or the certainty that some one else is not telling the truth, thus using the same word to describe a sensory perception, an emotion, or an intuition.

¹ C. Burt, *The Subnormal Mind*, p. 215, Oxford University Press, 1935.

² C. Jung, *Psychological Types*, p. 554, Kegan Paul & Co., London, 1923.

Perhaps the best way of making clear the kind of experiences included under this heading is to quote some of Susan Isaacs's more detailed description of the characteristic aspects of the second phase of development. For the sake of further clearness, I have classified these, as far as possible, under the headings used by Smith and Culpin in their interview programme. She says:

At the end of the first year the child shows himself capable of experiencing the whole range of fundamental emotions, rage, fear, jealousy, aggression, anxiety, disappointment, surprise, joy and passionate affection. . . .

He seeks constant signs of interest and attention, and without these tangible signs, appears lost and anxious. . . . After the end of infancy, he will tend to resent lying alone and to cry continuously when awake, if left without companionship and the social games he delights in.

REACTIONS TO EQUALS

Individual differences occur in the attitude of children to others of the same age, but characteristically the child of two behaves as if other children were rivals and enemies. He readily shows fear and suspicion in their presence and clings to any adult for protection. If he responds to other children, his play tends to take an interfering form, snatching toys, pushing and hitting, sometimes with a surprising strength and suddenness. These aggressive attacks may alternate with a somewhat fierce hugging and cuddling in violent affection. Rivalry is always near the surface, even with children who play happily with others for a time, and is liable to break through at any moment. . . .

Situations of open hostility and aggressive behaviour arise chiefly from the following motives: desire for ownership, desire for power, sense of rivalry, and general anxiety.

Occasions of friendliness and co-operation amongst children under five, although less dramatic than manifestations of hostility, are equally spontaneous and warm-hearted.

REACTIONS TO THOSE IN AUTHORITY

Friendliness may be shown to those adults who serve the

child's interests either by gifts or by technical help, or by maintaining a firm but gentle authority over the group, thus helping order and control.

The second year is marked by specially frequent tantrums and fits of obstinacy, expressed in violent screaming or bodily rigidity. Situations liable to cause such outbreaks are . . . any refusal or interference with a desired activity; any failure on the child's own part to achieve a desired purpose.

Manifestations of a feeling of guilt may occur at any time from the second year onwards, even in children who are never punished, and whose training has been mild.

REACTIONS TO SUBORDINATES

The attitude of older to younger children tends to alternate between teasing and domination on the one hand and tenderness and help on the other. A phase often occurs in which protective help is given, but in a forceful and dominating manner.

Moods of destructiveness and of direct aggression upon people are liable to occur in the second and third years. Intense rivalry and anxiety with regression to earlier levels of behaviour commonly appear with the birth of a younger child in the family.¹

Although these are descriptions of the behaviour characteristic of early childhood, they also had their place in studying older children; for not only does Susan Isaacs point out that in early adolescence there is a characteristic return to the conflicts of the earlier period, but also the kind of difficulties reported by the staff (Table I) indicated that somewhat crude emotional responses of various kinds were sometimes a real difficulty.

Observations of this kind, therefore, combined with the concept of asthenic and sthenic or submissive and assertive emotions, and also Jung's concept of interest turned inward and interest turned outward, provided the pattern for the next level on the chart. With this scheme it was possible to classify the kinds of interest expressed by the children

¹ Susan Isaacs, *Psychological Aspects of Child Development*.

themselves in the Postcard Sorting, in their day-dreams and preferred activities in school, and also the comments made about them by the staff. For instance, Burt says that children of the asthenic type are commonly reported by the teacher as 'nervous' and children of the sthenic type as 'naughty'. It will be seen from Table I that naughtiness or nervousness in various forms was a frequent reason for putting children on the 'difficult' list for interview. All the information available about each child was therefore reviewed and those items which, directly or indirectly, threw light on the child's assertive or submissive attitudes, were noted in this part of the chart.

3. EXAMPLES OF INTEREST IN EMOTIONAL EXPERIENCE

For instance, Letitia (see page 98) was reported by the staff for 'antagonistic attitude in class, indolence and lack of ambition'. But it was clear that her indolence only applied to her school work, for her achievement in games was excellent; also her own account of her day-dreams was all concerned with successful physical achievement and domination:

In bed I imagine I am diving in the Olympic Games, and doing extraordinary fancy dives absolutely perfectly.

In school I imagine I am taking a Gym class.

When listening to the wireless I wonder what it would be like to act, or sing into a microphone, or perhaps sometimes I feel I am broadcasting myself.

These characteristics could, therefore, be placed on the chart under the heading of 'emotionally assertive'. Laura, on the other hand, reported as aloof, scatterbrained, and supercilious in her attitude to school work, showed no interest in domination or successful performance. Although so close to Letitia in age and intelligence, her day-dreams are utterly different in type. She wrote:

I imagine I am far away in some unknown land, I fancy it may be Utopia. The fountains play and in their spray

there forms a cottage smallest of the small, I always think. The oak beams after many years have warped and now are bent and in the crevices grow moss of all shades. This place, once a home, is now an empty shell.

The roses pink and white have spread over the doorway so that I cannot enter in. I know what is inside because through the lattice windows lovely visions play across my mind. The house is mine, I say, no one shall even know what I see in there! I shall always remember how a tall Poppy bowed down to me and said, 'It is yours for ever'. This is one of my thoughts that comes to me when I am tired. I call it the Home of the Unknown.

Clearly, she is not much interested in emotional assertion; her answers on the Postcard Sorting also show this, since they are nearly all concerned with more contemplative enjoyment; even when she chooses two cards showing violent activity—the 'Trial Gallop' and the 'Horse Fair,' her reasons for liking them have almost a contemplative flavour; 'life in it' and 'everything tearing about' suggest, I think, that she is more interested in watching it than in doing it herself, and nowhere, in all the material, is there any mention of enjoying school games. She does, however, mention skating and dancing as leisure time interests, but these, clearly, are activities which involve less assertion and rivalry than school games. In fact, the only item in all the material obtained which can be classified under the heading of emotional assertiveness is the supercilious attitude to school work mentioned by the staff. On the other hand, she also does not show any obvious emotionally receptive characteristics.

It will be seen from the above that neither Letitia nor Laura found it easy to submit themselves to authority, Letitia responding with veiled antagonism and Laura with aloofness. But, according to Burt, fear and sorrow should be classed with the submissive emotions, and Letitia, in spite of her assertiveness and confidence ('over-confidence,' as one member of the staff called it) did admit certain fears;

CHART FOR CLASSIFICATION OF INTERESTS 111

for instance, although a champion swimmer, she was afraid to swim in the sea, for fear of being carried away; also, although in her questionnaire answers she says she never worries about her work, or in fact, about anything else, it appeared during the interview that she was liable to worry both about possible blindness and about being ill. These items were accordingly noted on her chart under the heading of 'emotionally receptive,' although they seemed to be rather distorted forms, and cannot be given as typical examples to illustrate what were classed as emotionally receptive characteristics. A better example is given by Tessa (X.L.) aged sixteen (I.B. between 110 and 120), reported by staff for 'inferiority complex'. Other comments of staff were:

extreme timidity,
nervous, over-anxious,
depressed,
used to cry over her 'prep',
easily discouraged.

but she is also,

very friendly, very co-operative, very attentive, gladly keeps the school rules, works as hard as she can.

She admits to worrying over her work (although she is a little brighter intellectually than Letitia and Laura who do not worry over their work) and also she worries when her younger brother 'will not go to bed and you have to tell him dozens of times'. Her day-dreams are also unassertive:

She writes:

When feeding my rabbits I think of the families of rabbits they are going to have and how sweet the babies are. When in bed at night I think what I should like to do when I am grown up, and how I should like always to live in the country and be with the birds and animals such as rabbits and dogs.

Her interests are also largely unassertive; she says she loves cooking, gardening, reading, housekeeping, making dresses for herself and her sister, and being with small children. She says she is terribly nervous, particularly of stern assertive people in authority, of tennis matches, of 'shooting' in netball. Her answers on the Postcard Sorting are:

<i>Likes</i>	<i>Reason</i>
Children drawing	I'd like to teach those children.
Bride and Pages .	so many children there.
Mother and Child	be the mother.
Washing Day .	what she's doing.
Lacrosse . . .	games.
Ski-ing . . .	games.
Trial Gallop .	games.
Moonrise on the	
Yare . . .	get away from everywhere.
Gleaners . . .	country.
Harbour of Refuge	old-fashioned.
Release of wounded	
Prisoner . . .	marvellous for the mother.
Woman reading .	—
Girl playing Organ	a lot of art, I like the whole thing.

<i>Dislikes</i>	<i>Reason</i>
Horse Fair . . .	—
Woman making	
Bread . . .	I like cooking but not that kind.
Gipsies . . .	rough crowd.
Fishermen at Sea .	I'd be afraid of a storm.
Dying Child . .	—
Guests drinking in	
Dutch House . .	too bare.
Her First Dance .	so bare.
Hoorn Church . .	I'd be frightened, it gives me the creeps.
Joan Crawford . .	a very hard life.
Suggia . . .	I'd not like to be playing to any one.

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<i>Dislikes</i>	<i>Reason</i>
Lady Salisbury .	not nowadays, I wouldn't have minded then.
The Vigil .	I like it, but not that person, terribly holy thing to be doing.
Death of Arthur ..	I'm terribly scared of death.
Women praying .	_____
Blind Man's Buff .	too much noise.
Wreck of Explorers	too much noise.
Firemen at Work .	_____
Girl lying on Beach	not to be lying down, I'd rather be more active.
Child riding on Cow	don't like much to do with cows.

It will be seen from this, that, apart from games, (she is in all her house teams, though not in the school teams) she likes quiet places and occupations; but she evidently prefers the quietness to be active and practical, she does not like doing nothing, and the ideas of peasant women praying, the quietness of an empty church, or the romantic death of King Arthur, all disturb her. These last answers may be compared with those given by the more contemplative and less practical Laura (page 99) to the same cards. Tessa's only marked assertive satisfactions seem to come from team games, although she perhaps also gets a little in a quiet way from her experiments in house-keeping and also in dress-making for her young sister.

CHAPTER V

INTEREST IN INTUITIVE EXPERIENCE

I. GROWTH OF INTEREST IN FORMULATION OF EXPERIENCE

CAREFUL study of responses such as Laura's made it clear that there were some children, amongst those being interviewed, whose interests and attitudes could not be classified solely in terms of physical comforts and activities or relationships of dominance and submission. For Laura seemed to be interested in knowing and perceiving, rather than in doing; it is what she sees through the window of her dream cottage that interests her, and it is the 'look on the little boy's face' that attracts her in one of the postcards, rather than the thought of whether it would be fun to ride on a cow. One of her favourite subjects is History 'because of knowing all about people years ago', and her favourite reading is Shakespeare. Responses such as these were particularly interesting in the light of the growing concern with the formulation of experience that Susan Isaacs places in the later phase of childhood. For instance, in describing the earlier phase, the end of the first year, she says that the young child

learns to understand and control concrete objects and their concrete relations. It is these in which he is interested. . . . The manipulative solution of problems remains the characteristic mode of intelligence up to the middle years of childhood. . . .

She then goes on to describe what the child can do progressively in the succeeding years, as indicated by the content of standardized intelligence tests. She says:

The problems which the child can solve at successive ages from four to eight years become successively and continuously less concrete and sensory, more verbal and

general; less personal and more impersonal; less immediate and more remote; less simple and more complex, involving progressively more detailed analysis and re-synthesis.

But though the child grows so that he *can* solve the less concrete, less personal problems, it does not always seem to follow that he will, that he will be really interested in them. Many of the replies in the Postcard Sorting suggested that there were girls whose interests were still entirely in the concrete and personal; they were not interested in experience, but in particular experiences, they could pick out the cards they liked and disliked, but they had great difficulty in giving detailed reasons why. But there were other girls, often of equivalent test intelligence, who could make judgments in their replies, judgments of considerable subtlety which showed that they were really interested in generalizing their experience. For instance, below is a comparison between some of Letitia's answers and those given to the same cards by a girl, Naomi, only four months older, and actually showing the same test intelligence as Letitia, although the staff were all agreed that this was 'too low' for Naomi. She was given a second test, owing to these staff comments, but showed no improvement.

	<i>Letitia (X.G.)</i>	<i>Naomi (X.L.)</i>
Gipsies	I don't like the life.	Nice because wild, not so sophisticated.
Women praying	wouldn't do that myself, it's only for old people.	prayer, rather lovely.
Release of wounded Prisoner	going back wounded.	relief.
Girl lying on Beach	boring, job combing hair, would rather comb my own.	soothing.
Almshouse Garden	shouldn't like to be a nun, you can't do anything.	peaceful.

Also in answer to the question 'What would you do if you had all the money you wanted?' Letitia had written—'Nothing in particular' and Naomi had written—'Try to become a ballet dancer. Also I should wish to travel all over the world and to experience the different atmospheres and ideas of the places.' Both these girls had put 'drawing' as one of the subjects they liked best in school, but the Art mistress had said that Naomi was especially gifted and sensitive in her work.

This interest in variety of experience, as such, relates to a particularly important aspect of development studied by Piaget.¹ He brings forward evidence to show the difficulty that a child has in learning to recognize psychic reality as distinct from physical reality, in learning that a thought has a separate kind of existence from concrete objects. Although the ability to reason at all does involve this recognition, so that all the children studied here must have accepted this distinction as a matter of habit, for they all managed some show of reasoning in the intelligence test, yet clearly not all of them had accepted it emotionally—or rather, they recognized the existence of thoughts, but they were not interested in them. Because of this distinction of Piaget's I have put a line right across the chart, dividing interest in physical experience and emotion from interest in knowing, that is, from interest in the formulation and use of experience, whether it be in terms of abstract concepts or in more intuitive terms.

2. DEFINITION OF 'INTUITION'

In her survey of development Susan Isaacs goes on to describe how the gradual growth of the capacity to deal with logical relations occurs. She says:

The understanding of logical relations is not arrived at as such in its abstract form, and then applied to particular

¹ J. Piaget, *The Language and Thought of the Child*, Kegan Paul & Co., London, 1926.

fields. It is always achieved first in a particular field, and gradually generalized to the point of verbal formulation. Children can make practical use of logical relations, such as exception and generalization, well before they can formulate in words what they are doing.

But this capacity to know without knowing how you know is the generally accepted definition of intuition; and not only is it a phase in the development of the child's capacity to think, it is also a necessary phase of any reflective thinking process in adults. Also it is quite clear that individuals differ enormously in the respective parts played by intuition and logic in their thinking. One reason for this seems to be that, for people who are interested primarily in the subtler aspects of feeling and the emotional relationships between people, logical formulation is entirely inadequate; there are whole ranges of experience which cannot be expressed at all by the literal logical use of words. For them, words are most important when used figuratively rather than according to their dictionary meaning, or very often these people do not formulate their experience in terms of words at all, but rather in terms of colour, shape, musical sound, or bodily gesture. It will be remembered for instance, that Naomi, whose art work was 'sensitive' and whose ambition was to be a ballet dancer, achieved a score in the intelligence test that the staff unanimously agreed was far below her capacity as shown in work. For her the Group Test seemed to be a quite inadequate instrument of measurement, she could not apparently bring herself to *think* in logical terms to order. This was an extreme instance, however. In the majority of cases, as has been seen already by the comparatively small number of test scores marked 'too low' by the staff, the children could force themselves to think in logical terms when asked to on a special occasion for a limited time, even though they might not be able to bring themselves to do so in the protracted tasks required by school work.

3. EXAMPLES OF MARKED INTEREST IN INTUITIVE EXPERIENCE

In general, the children who made many responses that indicated an interest in knowing, but in a knowing that was in terms of particular experiences and not formulated in logical terms, were children who did actually score fairly high in the intelligence test. Here, for example, is Sheila (D.C.) age fourteen (I.B. between 160 and 170, marked 'too low' by the staff). Reported as 'very inaccurate, not full attention'.

Favourite subjects

English, because I have always loved it. German and French because I hope to use them in the future. Handwork and Art, also History and Geography, tremendously interesting.

Subjects least liked

Latin, not interested in dead languages, Maths. haven't much of a head for them, though am finding them easier this year, they used to bewilder me.

Subjects she would like to give up

Arithmetic, because I hope I shan't have to use it in future, except for accounts, and therefore think it waste of time.

Subjects she would like to learn

Shorthand, typing, essential for the work I want to do, also Cooking, Italian, Spanish, etc.

What she would like to do instead of games

Handwork, Cooking, First Aid (Nursing, etc.), and many more things.

Changes she would like in school

I would like a lot of the red-tape convention of schools to be cut down and get really down to the job of *learning*. More freedom between mistresses and girls, and parents to be able to express opinions and share in managing of school.

Hobbies

My puppy, writing, imagining, walking, etc., etc.

Membership of Girl Guides or any other social club

No, clubs bore me, I like friends instead.

Attitude to school

I enjoy it on the whole but shall love to be independent and help my family.

Ambition

To be a journalist.

*Postcard Sorting**Likes**Reason*

Boy and Girl	rural, I like anything country, I'd be the girl.
Moonrise on the Yare	I'd like to go anywhere abroad, also it's beautiful.
Blind Man's Buff	always liked it.
Ski-ing	like to.
Ballet Dancer	like to be able to dance, beautiful to do something really well.
Wreck of Explorers	to have been in history—though we are in it now, really.
Girl lying on Beach	nice, to be lying and a fond Nanny doing one's hair.
Children drawing	art.
Hoorn Church	I love old churches, especially when they are empty and quiet.
Girl playing Organ	I like music of any kind, I might be listening.
Suggia	.
St. Joan	don't know why, something marvelous to have such a brave heart and mind.
Boy lying in Sun	love to, always love lying in the sun and dreaming.
Mother and Child	have a baby of my own.
Woman reading	I love reading.
Telescope	very interesting, love to learn about Mars and everything.
Gleaners	also rural.

<i>Dislikes</i>	<i>Reason</i>
Fishermen at Sea .	makes me ill, horrible.
Acrobat . . .	gives me the jim-jams.
Laboratory . . .	rather bores me, to be a scientist.
Alms-house Garden.	rather melancholy.
Lacrosse . . .	I hate any kind of netball, hockey, games, but like riding, cycling, walking.
Trial Gallop . .	would have the jim-jams, might fall off.
Bride and Pages .	it would bore me.

Extracts from day-dreams essay.

I have a very uncomfortable habit of day-dreaming at the wrong time, especially during Maths, and am constantly getting into hot water about it. For instance, in the middle of a square root sum I find myself thinking about INDIA, or something like that. Not that I have ever been to India or am ever likely to go, but it interests me to imagine what people are doing, say, in Calcutta, while I am chewing the end of my pencil and meditating thus. . . .

I often wonder how people without imagination ever exist . . . there seems a sort of dull, lifelessness in humanity which not all the fire and gesticulation of the French and Italian put together can ever arouse. . . .

Of the multitude of my day-dreams, ones of the future are, of course, foremost; because I am still young and have plenty of time to have the ambition and courage crushed out of me by people who are forever warning the younger generation against the waywardness of the world and hanging out red flags of warning in the shape of poor, miserable, lined faces, showing how the world has treated them.

There is my everlasting hope of some day writing a tremendous book which will live as have those of Dickens, and Maugham and Walpole. . . .

Believe it or not, I love learning, and yet I want to leave school. If only, OH! if only, we could learn French and German and other languages so that we could get right at the heart of the subject and learn it as the natives speak, instead of learning French verbs subjunctives, which no

Frenchman on earth would ever use, unless he were an extreme pedant. Let us learn in German how to ask for food when we are hungry, for a bed when we are tired, or for a fire when we are cold, and the million and two things which we must know to LIVE. There are a lot of things I wonder about—why men ever existed, what the object in life is—but then I feel I have to wade out to Practicality again or I lose my balance.

It will be noted that, side by side with the reaching out after every variety of experience, is impatience with everything formal, whether the conventional barriers of school life or clubs, or the formal logic of a 'dead' language, or of Mathematics and Arithmetic and laboratory Science. It is the variety of particular experiences that she is interested in, not the logic of them, so her relationship to her surroundings is largely intuitive, and her capacity for logical concentration is inadequate, so far as the school is concerned.

Similar characteristics, although more exaggerated, are shown by Elsie (A.D.) aged fifteen. Her I.B. is between 130 and 140 which also is marked 'too low', though only by one member of the staff. But she was listed as 'difficult' by four or five members of the staff, with the following comments:

cannot concentrate.

works up an emotional state if restraint is imposed on her.
cries a great deal.

no intention of working.

appreciates subtleties but will not think.

Like Sheila, she puts as her favourite subjects:

English, because it helps us to get a broader minded view of life. History because it makes people of past ages alive to me. German because it will in time enable me to converse with others. And Scripture because it helps me to 'sort myself out'.

She also dislikes 'Latin most, because it is a "dead" language'. Of all the things she does in school, she likes acting best, and, again like Sheila she would like to learn cooking; also 'more languages. More about the stars and planets.' She would also like to learn Lacrosse, for, unlike Sheila, she enjoys games. She says that her hobbies are 'collecting fine paintings from books. Collecting interesting foreign coins.' In answer to the question about worrying, she writes:

Yes, I worry about why we were put into this world, and whether I am doing my job well, and what is going to happen afterwards, although I do not call it worrying, I just think rather hard about it.

Sheila had also written that she worried 'about conscience' and that the thing she liked best in school was Morning Prayers because it helped her during the day, just as Elsie had said that Scripture helped her to 'sort herself out'. Elsie is also looking forward to leaving school 'because it will be lovely to be independent', her greatest wish is 'to travel all over the world, I don't mind how' and her ambitions are:

to become a ballet dancer.
to get married and have babies and write good books.

In the Postcard Sorting, of the cards she puts in the 'likes' group, twelve out of seventeen are the same as Sheila's 'likes' with similar reasons; those that are different are mainly concerned with games and sport. She was absent for the day-dreams essay.

Liz (C.M.) also aged fifteen, and I.B. between 150 and 160, also listed as 'difficult' by many members of the staff, was described as follows:

uncontrolled.
resents correction.

thoroughly nervous, easily upset, inclined to be uncontrolled.
very uncontrolled, moody.

Her favourite subjects are English and Geography—‘I like these best because the lessons vary so, and include such a large range of subjects’; she would like to learn Chemistry, she likes ‘school as it is now, except that I wish we had more games and gym’. She says she worries about her lessons and preparation, also about war and illness. She says her hobbies are photography, studying birds, reading, and she says ‘I like school so much, I shall hate to leave, but I want to go out into the world.’ Her ambitions are:

1. To go to a University and study languages.
2. To be a games mistress.
3. To be a missionary.

Her Postcard Sorting answers are:

<i>Likes</i>	<i>Reason</i>
Boy lying in Sun .	out of doors, I like children, I'd like to be him.
Woman reading .	I love reading anything, history, and so on.
Ski-ing . . .	I'd love to be there.
Girl playing Organ	I like music, I'd love to play.
Moonrise on the Yare . . .	don't know, I love to be out at night.
Keepers attending to Elephants .	animals.
Lacrosse . . .	sport.
Woman Flyer .	I like anything about aeroplanes.
Trial Gallop .	I like horses and riding.
Milking . . .	I like doing it.
Explorers wrecked	finding a new place.
Telescope . . .	it just interests me.
Child riding on Cow	I like the country and children, I'd be the mother.
Ballet Dancer .	I like dancing, though I can't do it.

<i>Likes</i>	<i>Reason</i>
Girl lying on Beach	I love the sea.
Hoorn Church .	I love going to church.
Horse Fair . .	horses.
Suggia . . .	love to be able to play.
Death of Arthur .	I'd like to be one of the queens, and because it's sad, and about history.
Almshouse Garden	because it's sad.
Mother and Child	I'd be the mother, I love babies.
The Vigil . . .	kneeling down in a lovely big place.
Fishermen at Sea .	I love the sea, deep sea fishing.
Firemen at Work .	helping to save life.
Women praying .	I like to go to church.
Boy and Girl . .	like to be the boy, because he lives outside, used to want to be one, not so much now.
Gleaners . . .	the country.
Bride and Pages .	be the girl because she is happy.

<i>Dislikes</i>	<i>Reason</i>
Serving Maid . .	don't like carrying pots about.
Gipsies	don't like gipsies and the people strike me as being so rough.
Joan Crawford .	I hate film stars and films.
Washing Day . .	don't like washing.
Blind Man's Buff .	seems sort of rough, I like playing it, but not how they are playing it in the picture.
Acrobat hanging by Teeth	I hate to see men doing things like that.

It is worth noting that her interest in experience for its own sake even extends to the capacity to say that she likes something because it is sad; compare, for instance, her reason for liking the 'Death of Arthur' card with Letitia's (page 99) and Tessa's (page 113): 'wouldn't like to see anybody die there', and 'I'm terribly scared of death.'

Liz says that when she was a little girl her favourite day-dream was of going to school:

When I was supposed to be working with the governess, my thoughts were far away, and I was often punished for inattention, by being sent to bed; but I did not mind this punishment, as I could imagine things more vividly by myself in my bedroom. . . .

My special day-dream now is to go abroad, to India or China.

Her mother reports that she is 'all up and down' in mood, 'quite irrepressible', 'comes in like a whirlwind', 'always carts a friend in with her when she comes home', 'makes friends with all sorts of odd people that she meets'.

When these three girls, Sheila, Elsie and Liz, all from different schools, were compared, it was seen that they had certain marked characteristics in common; not only do they seem to be interested in variety of experience, but they seem to be reaching out in space and time, they are interested in History, Geography, Astronomy, and they want to travel widely. They are also interested in expressing themselves, they want to study languages, to be ballet dancers, to write books. When asked to 'draw a person' two of them, Sheila and Elsie, drew women in long evening dress, and Liz drew a man; whereas the most common type of drawing made in answer to this request, by girls who showed a dominant interest in the present and in concrete physical experience, was a school-girl in a short gym tunic. Also, although they all three gave a larger number of 'likes' than dislikes' in the Postcard Sorting, they all three admitted to worrying, both about their lessons and preparation, and about such issues as 'conscience', the purpose of life, war.

4. EXAMPLES OF GIRLS WITH HIGH TEST-INTELLIGENCE, WHO ARE NOT INTERESTED IN KNOWING

Two of these three girls were above average in intelligence, so it seemed possible that this wide reaching out after experience might be purely a function of high intelligence; although it will be remembered that both Laura

(page 99) and Naomi (page 115), who also showed some of these characteristics, scored well below average in intelligence tests. A study was therefore made of children of equally high test-intelligence, but whose answers on the Postcard Sorting seemed to show that their interests were more tied to the present moment of experience, whether physical or emotional. The most striking result of such a comparison was that the children in the latter group appeared:

- (a) less inclined to worry, or, if they did, would not admit it.
- (b) to have less definite hobbies.
- (c) inclined to describe quietness, old buildings, and so on, as 'dull' or 'miserable'.
- (d) to have more 'dislikes' than 'likes' in the Postcard Sorting.
- (e) less able to give reasons for preferences.

For instance, Norah (page 105) with an I.B. between 150 and 160, can give no reasons for her choice of the subjects she likes best, English and French, she cannot say at all what she likes best of all she does in school, and she cannot suggest anything that she would like different in school, although she does not like it and wants to leave. She says she never worries, except occasionally about English Essays, and she says she has no hobbies at all, her only occupation at week-ends and holi days being 'going out'. She says she never day-dreams and has no clear idea what she wants to be, although she has had vague ideas of being a pianist. She could not say at all what she would do if she had all the money she wanted.¹ Her answers to the Postcard Sorting were as follows:

<i>Likes</i>	<i>Reason</i>
Gleaners . . .	pretty, warm.
Gipsies . . .	interesting, plenty of people to see.
Girl on Beach . . .	warm, sort of nice, I'd be the girl.

¹ In one version of the Questionnaire given to the girls, the last question read: 'What would you do if you had all the money you wanted?'

<i>Dislikes</i>	<i>Reason</i>
Fishermen . . .	probably cold, not very pleasant.
Joan Crawford . . .	not frightfully keen on movies, very hard work.
Firemen . . .	everything getting burnt up.
Death of Arthur . . .	miserable.
Moonrise on the Yare . . .	not very pretty.
Almshouse Garden . . .	miserable looking, not pretty.
Her First Dance . . .	not fond of dancing.
Blind Man's Buff . . .	running about, don't like it, would feel miserable.
Hoorn Church . . .	miserable.
Guests in Dutch House . . .	would not like to go to Holland . . . windmills.
Child on Cow . . .	don't like cows.
Release of Prisoner . . .	miserable.
Washing Day . . .	don't like anything in the house.
Woman making Bread . . .	not to be making cakes.
Dying Child . . .	looks sleepy or ill.
Horse Fair . . .	not interested in horses.
Wreck of Explorers . . .	not on an island.
The Vigil . . .	sitting up all night.

Theodora (X.E.) aged a few months younger, but with a little higher intelligence (I.B. between 160 and 170) is clearer about what she likes, but this is markedly concerned with experiences that are concrete and present day. For instance, she likes music, netball and tennis best of all the things she does in school. She would like to give up learning Geometry and Science and take up the piano-accordion, the viola and the saxophone. The changes she would like in school are 'better school dinners, not so much homework, we work all day in school, and then take one and a half hours of prep. home, there is hardly any time for pleasure.' She does not worry about her lessons, and only about other things 'occasionally, if anything goes wrong at school or at home, otherwise I don't.' At weekends and in

the holidays she likes to 'go out and enjoy myself', and hardly ever reads, although her favourite authors when she does are P. G. Wodehouse and Louisa Alcott; she has no hobbies. Her ambition is to earn a lot of money and have a flat in town, and if she had all the money she wanted she would 'buy nice clothes and go for a cruise'. The following are extracts from her essay on day-dreams:

The first day-dream that I can remember was to be a schoolmistress. That was when I was about seven years old, and I liked all my lessons then. While the teacher was talking away about England and Scotland I would watch all her movements and think that one day I'd be standing out in front, doing the same things. . . . I don't think that I have any special day-dreams now, but when I hear or see anybody who is very famous, I always make up my mind I will be just as famous. It is rather ridiculous, but it is just a day-dream.

In her Postcard answers it will be seen that she is interested in new experiences of an active or assertive kind, for instance, fighting a fire, but not in quietness or sadness.

Theodora (X.E.) Age 14+ I.B. between 160 and 170
(twice tested but marked 'too low' by staff.)

<i>Likes</i>	<i>Reason</i>
Firemen . . .	I've never done that, it would be a new experience.
Lacrosse . . .	have never played it, would like to once or twice.
Ski-ing . . .	would like it.
Trial Gallop . . .	would like to win the race.
Blind Man's Buff . . .	typical rowdiness.
<i>Dislikes</i>	<i>Reason</i>
Women praying . . .	they look miserable.
Death of Arthur . . .	they look miserable.
Lady Salisbury . . .	old-fashioned.

<i>Dislikes</i>	<i>Reason</i>
Her First Dance .	old-fashioned.
Girl playing the Organ .	old-fashioned.
Release of wounded Prisoner .	miserable.
Mother and Child	rather interesting, not old-fashioned, but I don't want a child.
Fishermen . . .	looks cold.
Horse Fair . . .	wild.
Gypsies . . .	in the country all the time.
Moonlight on the Yare . . .	dark and dull.
Guests in Dutch House . . .	old-fashioned.
The Vigil . . .	old-fashioned.
Child on Cow . . .	not children.
Dying Child . . .	would not mind being asleep.
Girl on Beach . . .	old-fashioned clothes.
Suggia . . .	too stiff.

It should be noticed that she does not say that she would be afraid of being out in the sea in a small boat, or amongst over-excited horses, she only says that the one picture looks cold and the other wild. She did mention, however, in the course of conversation, that she was afraid of worms, caterpillars and spiders. Clearly, she was particularly interested in assertive situations—to win a race, to be famous; the staff were apparently well aware of this trait, for they had written:

difficult to manage in class.
 plays to the gallery, apt to be wilful and rebellious in a crowd.
 can be most charming if taken by herself, vivid personality.
 had a phase of showing off to the gallery, putting on airs,
 assuming a superior and impertinent smile.

She was reported by some to be very gifted, chiefly in music and languages, but her interests did not seem quite to

have caught up with her gifts, she certainly seemed to want to feel the blind rush of experience rather than to know it by finding forms of expression for it. So it is reported that her musical performance, in spite of great technical skill, is 'repressed'. In the interview she said she did not want to take life seriously, and would rather have been a boy and 'play football, have a good time, no bother about appearances'. When asked about day-dreaming in class, she said she never looked as far ahead as the holidays, she preferred the present, if she was bored with the lesson she never took refuge in thinking about something else, but would look round to see what the others were doing. When younger she used to be taken to church but it always made her cry.

Nesta (D.S.), although not showing the vivid assertive qualities of Theodora, had a somewhat similar attitude to anything 'serious'. She was fifteen and scored somewhat higher in the intelligence test, between 170 and 180 I.B. The staff reported:

has ability but is losing grip.

always been rather queer and remote, might have been brilliant.

In the interview she appeared as a person with a lazy sort of charm and a bored manner; she did not seem particularly interested in her work, for what she liked best in school was 'Recreation after lunch because I feel that I have hardly any work to do after.' She said that she did not worry at all, in general, except 'whether I will get into a row for not doing sufficient Maths. homework'. She said also that she used to be quite good at writing poetry and essays when in the Upper IV, but was 'not so keen on it now'; she also wrote 'I have no special hobbies, but I like baking.' She was looking forward to leaving school 'in a way, because nothing very interesting happens nowadays'. Her vocational plan was rather half-hearted—'secretary, because people usually advise me to do this.' Her Postcard answers were:

<i>Likes</i>	<i>Reason</i>
Ski-ing . . .	like to learn to, fun.
Trial Gallop . . .	like to learn.
Reading . . .	I like it when bored, or it's raining, chiefly P. G. Wodehouse, and de- tective stories or John Buchan.

<i>Dislikes</i>	<i>Reason</i>
Almshouse Garden	too boring.
Hoorn Church . . .	too boring.
Ballet Dancer . . .	tried to once, but rotten at it.
Serving Maid . . .	certainly not.
Women praying . . .	silly.
Suggia . . .	too posh.
Her First Dance . . .	looks mad, so silly, feeble.
Blind Man's Buff . . .	played it at parties as a child, and didn't take to it.
Horse Fair . . .	too fierce.
Woman making Bread . . .	same as serving maid.
St. Joan . . .	?
Acrobat . . .	too dangerous.
Lady Salisbury . . .	hate to be a female like that.
Wreck of Explorers	seasick.
Death of Arthur . . .	not sitting around some one just about to die.
The Vigil . . .	silly idea altogether.
Washing Day . . .	domestic again.
Mother and Child . . .	don't want to be a mother, too much bother.

In the day-dreams essay she wrote:

The time at which I usually day-dream is in boring lessons, and at night time when I am in bed, just before I go to sleep. I remember once I was feeling rather bored in a French conversation lesson, and I noticed that the hair of the girl in front of me was sticking out a bit at the back. This reminded me of the time when we were playing cricket last summer and it was about to thunder, and

everybody's hair stood up on end from the electricity in the air. That is not a real day-dream. They are more thoughts of an experience one has had in one's life, and wishing they could happen again. But that day-dream is truly, the only one that has not slipped my memory.

It seemed then that the first three described, Sheila, Elsie and Liz, were interested in all the subtle varieties of experience, and in ways of expressing these, although they did not seem able to achieve much of the restraint and discipline of logical formulation; and the last three described, Norah, Theodora and Nesta, although of equal intelligence, were not interested in formulation at all: they had not really discovered the mind as an instrument, they had not even discovered how to use its pictures as a method of whiling away moments when they were bored. They had not apparently really achieved what Susan Isaacs describes as one of the results of the imaginative play of childhood:

the freeing of thought from the here and now of perception, and evoking the future in constructive hypothesis,

they could not achieve

the development of 'as if-ness' that the construction of a hypothetical future requires.

Theodora could not even think as far ahead as the holidays.

This inability to let go their hold on the concrete and the present was, perhaps, also expressed in their marked dislike of anything 'old-fashioned' or religious; or of the thought of death, however romantic. For Susan Isaacs says:

Time relations are mastered at a later age than spatial, just because they require more elaborate integration, and a greater degree of imaginative construction less supported by present experience.¹

¹ *Psychological Aspects of Child Development.*

And probably it takes even longer to accept time relations emotionally, as well as intellectually. As a five-year-old said when it was explained to him that not so very long ago there were no motor-buses in London: 'Yes, I understand that—but I don't believe it.'

What may be the reason for the failure of girls of this type to develop the wider interests that are apparently appropriate to their age and intelligence, will be considered later. At this stage the only aim was to find some way of describing observed differences between the children interviewed.

CHAPTER VI

INTEREST IN INTELLECTUAL EXPERIENCE

I. EXAMPLES OF SUCCESSFULLY ESTABLISHED INTELLECTUAL INTERESTS

It is now generally accepted that the upper limit of the maturation of intelligence occurs in late adolescence, that round about sixteen, seventeen or eighteen the basic intellectual capacity reaches its maximum growth, and that all future intellectual progress will be a result of improvement in habits of thought rather than improvement in basic capacity. But, as has been seen already, the fact that a person has reached the full capacity for adult logical thought does not mean that he or she is necessarily interested in thought. The following answers, by a girl, Isobel (B.M.), not in the 'D' group, but holding a position of high responsibility in the school, are given here as typical of successfully established intellectual interests; 'successful' is used in the sense that the other levels of interest are not entirely excluded, since the girl is satisfactorily performing important social tasks as well as intellectual ones. (No I.B. because too busy to take the test). Age eighteen.

Favourite subjects

French, general interest in its literature and also we have a very good mistress. But now I have got to the stage of liking them all very much and almost equally.

Subjects disliked before specialization

Mathematics and science—because you arrive at the really interesting part only when you get to the Sixth and are sickened by an excess of mechanical examples all up the school.

Activity liked best in school

Walking round with my friends at play and after dinner—acting.

Subjects she would like to take up

Greek, Italian, Spanish, History, Philosophy and Theology—in order to read Homer, Dante and Cervantes in the original and also general curiosity.

Suggested changes in school

More Elizabethan dramatists to be studied up the school—share the Shakespeare lessons with Marlowe, etc.

Worries about lessons

None.

Worries about other things

Pacifism, politics, religion; but I get less depressed than I used to.

Spare time activities

Theatres, listening to music, travel, bike; be with my friends, riding.

Main wishes

. . . Ability to see the intellectual right and truth more.

Postcard Sorting

Likes

Reason

Gleaners	. . .	settled thing to do, you'd know what it was.
Boy lying in Sun	. . .	nice to lie under the sun on a hill.
Trial Gallop	. . .	I love it, would be <i>doing</i> something.
Suggia	. . .	also would know what your business was and have something to do.
Milking	. . .	something to do—and I could be really fond of cows.
Girl playing Organ	. . .	to live in such surroundings and have beautiful dresses like that, and hair like that.
Fishermen at Sea	. . .	interest in sea and nature and something to battle against.
Ballet Dancer	. . .	the glamour of it.

<i>Likes</i>	<i>Reason</i>
The Vigil . . .	would know what you had to do, not many doubts, pretty clear, also rather exciting.
Death of Arthur . . .	something worth living for then, general attraction of chivalry.
St. Joan . . .	the same.
Lady Salisbury . . .	atmosphere of chivalry.

Dislikes

(She had no time to stop and give reasons for these):

Woman reading, Girl lying on Beach, Child riding on Cow, Bride and Pages, Women praying, Almshouse Garden, Children drawing, Gipsies, Acrobat, Her First Dance, Joan Crawford.

The desire frequently expressed here to know exactly what one's business is, is particularly interesting, in relation to the establishment of intellectual interests; it may be due to the fact that the freedom of the intellectual life can bring with it a feeling of insecurity from too many possibilities.

Ann (B.C.) (I.B. between 180 and 190), who is considerably younger, only fifteen, and also one of the 'satisfactory' group, also shows an interesting phase in the establishment of reflective thought, for her favourite occupation seems to be discussion. Thus:

Favourite subjects

History, because it is about people, English, because I like poetry and writing essays. Practical Science because it is about everyday life, Current Events for the same reason.

Subjects least liked

French, because there is so little variety, Latin for the same reason and because it seems useless in after life.

Favourite activity in school

Walking round discussing and talking after dinner.

Subjects she would like to give up

Latin because I shall not use it much when I grow up.

Subjects she would like to learn

First Aid, because it is almost always useful. Civics, because it's practical and useful. More Foreign History, for interest.

Activities partly instead of games

Read, in the Library and out of doors. Have more debates and discussions.

Suggested changes in school

Opportunity for discussion. Form meetings, for discussions, once a week.

Worries

Not about lessons, but about religion and because I don't always know what side to take.

Hobbies

Keeping guinea pigs.

How she would spend a whole holiday

Spend the morning in the public reading-room, with a friend, have friends to tea and discussion and sing choruses.

Vocational plans

Be a missionary.

Postcard Sorting

Likes

Reason

Lady Salisbury	.	out for a walk, dog, nobody else there, jolly.
Hoorn Church	.	peaceful.
Children drawing	.	nice light place, and every one doing just what they like.
Boyl lying in the Sun	.	scenery is lovely, and doing nothing, nobody there.
Woman making Bread	.	so peaceful, no troubles about it.
The Vigil	.	I like the idea, so solemn and alone.
Mother and Child	.	so homely, be the mother.

<i>Dislikes</i>	<i>Reason</i>
Keepers attending to Elephants .	afraid of its standing on me and also I'd not like to hurt it.
Joan Crawford .	I don't like film stars.
St. Joan .	she was treated so badly, and I'd not have liked to lead all those.
Wreck of Explorers	so dangerous.
Fishermen at Sea .	so dangerous.
Her First Dance .	society stuff.

It is interesting that she is capable of enjoying being alone, although she says she also enjoys parties, and she is inclined to be nervous in situations of some danger, though none of her fears appear to be irrational: that is, she is not afraid of something that could not possibly hurt her, such as caterpillars or worms, as Theodora was (see page 129.)

2. EXAMPLES OF OVER-BALANCED INTELLECTUAL INTERESTS

The answers of these last two girls, who were interviewed because they were having successful school careers, may be compared with the two following, who were both on the 'difficult' list. Margaret (E.C.) aged sixteen was described as 'argumentatively obstructive sometimes' and 'very egotistical'; she did not do the intelligence test, but her academic achievements indicated that she was one of the most intelligent girls in the school. Some of her answers seem to show an exclusive preoccupation with intellectual formulation; for instance, the following are selected from her reasons for disliking certain of the postcards:

<i>Dislikes</i>	<i>Reason</i>
Girl playing Organ	would not like to play myself.
Woman making Bread .	there's not enough in a peasant's life, work from morning till night, no books.

<i>Dislikes</i>	<i>Reason</i>
Women praying	don't like emotionalism.
Girl lying on Beach	doing nothing at all, nothing to do, hot.
Her First Dance	too artificial, formal, fixed.
Lady Salisbury	life of a society woman, have to do too many fixed things.
Children drawing	I don't like drawing.
Laboratory	I'm not at all handy with my hands.
Telescope	I'm not scientific enough.
Joan Crawford	not enough in it, rather have books.
Acrobat	would not like to perform in public, also it's not intellectual enough.
Blind Man's Buff	Too many people, too much noise.

Although all these comments on the situations depicted are quite rational objections, they are certainly one-sided, when compared with comments made by others. The one-sidedness of her emotional attitudes was also perhaps shown by her day-dreams and comments on school life. For instance, one of her day-dreams was to go into Parliament and eventually become Prime Minister, and her answer to the question about changes in school was:

There is far too much institutionalism—the school aims, or seems to, at turning out girls exactly resembling each other; any show of individuality is repressed like the plague.

This great interest in an intellectually assertive role may be compared with the following attitudes, expressed by a girl firmly established in intellectual interests, but with difficulties of lack of assertion.

Iris (C.B.) aged sixteen (I.B. between 140 and 150) (but this was judged as 'too low' by four members of the staff) was described as 'selfish', 'an intellectual prig'; the staff reported that she never took her share of responsibility, 'never lifts a finger for the school', and 'we have been trying to get her to see the other side, to see that though she is perfectly at liberty to follow her own intellectual tastes she

must recognize the other side.' Iris's own version of the difficulty is as follows:

Favourite subjects

Latin and Greek. I like these because they hold the most interest for me. Anything which is not modern has a special appeal for me.

Subjects disliked

Mathematics and Chemistry, these I found dull and boring, there was not sufficient variation.

Activity liked best in school

I liked my work best of all. I am always miserable if I have not enough to keep me occupied. I am fond of sport but it has less influence over me than the subjects I like.

Activity instead of games

I have very little time for art and would appreciate time for drawing, painting and handicrafts.

Worries

I sometimes worry because a natural shyness comes in my way and spoils things.

Hobbies

Music, reading, collecting old coins and postage stamps.

Ambitions

A University career.

Wishes

To travel all over the civilized world, a library with all the books I want to read and buy, a knowledge of several modern languages so that I could go amongst foreigners and learn their habits and dispositions.

Clearly her problem is different from Margaret's; her exclusive interest in an intellectual relation to her surroundings is reported only by the staff, the girl herself at least expresses a desire for a wider relationship, such as in music, painting, handwork, even though she may not be able to achieve it. Also Margaret did not even wish to have

other contacts than intellectual ones, and her main difficulty was, according to the staff, over-assertiveness and argumentativeness. But Iris is apparently not assertive enough, she says her shyness has prevented her being made a prefect, 'because the staff say that if I were prefect I would not know enough people'. She says she does not mind children individually, but 'goes all to pieces with groups'. Also she hates arguing, and will always do everything she can to avoid a quarrel. Her mother reports that she has no friends of her own age, but is perfectly at ease with intellectual adults, who can, as she says, 'talk sense', and where no assertiveness is required. Her answers on the postcards were:

<i>Likes</i>	<i>Reason</i>
Girl playing Organ	like to be playing music.
Children drawing	I like drawing, I do it at home, landscape and figures.
Hoorn Church .	I like old churches.
Boy lying in the Sun	I often laze about, like to.
Woman reading .	I like it, historical novels especially.
Suggia . . .	music.
Moonrise on the Yare . . .	scenery.
Telescope . . .	I'm interested in the stars.
Almshouse Garden.	scenery.
Death of Arthur .	I like the peace of it.

<i>Dislikes</i>	<i>Reason</i>
Woman making Bread . . .	I don't like cooking.
Wreck of Explorers	I'm not particularly fond of adventure.
Firemen at work .	I don't like scenes of horror.
Washing Day .	don't like domestic work.
Ballet Dancer .	not to be dancing, not to be in front of a terrific crowd.
Bride and Pages .	not to be dressed up though like to be a bride.

<i>Dislikes</i>	<i>Reason</i>
Keepers attending to Elephants .	not to be doing that job, frightened of hurting the elephants, I'm not nervous of animals but I am frightened of hurting them.
Child riding on Cow	the same.
Horse Fair . . .	I like horses singly, but not like that.
Acrobat . . .	same reasons as for dancing.
Joan Crawford .	doesn't appeal.
Her First Dance .	dancing again.

Her attitude to animals was particularly interesting, and will be considered below in discussing possible causes for the different attitudes observed. This characteristic difference between Margaret and Iris in emotional response, combined with intellectual interests, is also shown, for instance, by a remark of Margaret's that she would rather not go to a particular lesson, which actually dealt with what is her dominant interest and ambition—'because I never know a thing'—that is, she does not like to be in a position where she can only receive, and cannot be giving all the time. This may also be compared with a remark made by Nan (E.W.) who is younger, but of equally high intellectual endowments; she gives as a reason for liking a certain lesson: 'It's much nicer to do things with people who are on the whole better than oneself.'

The differences between inward and outward turning interest, that were fairly clear and easily recognizable on the levels of physical and emotional experience, also show on the level of knowing, but they are, perhaps, easier to illustrate on the level of intellectual experience than intuitive experience. Ina (A.L.) aged seventeen, (I.B. between 170 and 180) and also holding a post of high responsibility in the school, gives the following answers:

Favourite subjects

Chemistry, because it is very exact, it is not vague like zoology.

Subjects disliked

Gym, Games, English (except Grammar), because I don't like writing essays and reading essays and poetry.

Activity liked best of all in school

A practical chemistry lesson, especially Volumetric and Analysis.

Subjects she would like to take up

None.

Alternatives to games

Folk dancing or riding or just have ordinary lessons with no time for games.

Worries

Never, about lessons, but I shouldn't like it if there was a war and I couldn't go to College.

She says she has no special hobbies, but likes reading, knitting, needlework, animals, and dislikes going to church and writing poetry.

Clearly her intellectual interests are biased outwards, towards all that can be expressed in a clear external formula. These answers may be compared with Diana (A.B.)'s, who is in the same school, has the same I.B., is only a year younger, and also intends to go to college:

Favourite subjects

English because I like books and the romance of words. History because the romantic side appeals to me, such as courts, battles, and national life.

Subjects disliked

Latin, because the syntax is to me complex and because the Romans do not appeal to me. Chemistry, I liked the experiments but never could remember them.

Favourite activity of all in school

Being in the Dramatic Society, because it is lovely to be some one else for a while. Browsing in the library.

Subjects she would like to take up

Astronomy, I should love to learn about the stars.
Dancing, ballet and ballroom.

Hobbies

Poetry, reading, acting, photography, English countryside.

She also likes babies, parties, going to church, writing poetry. Clearly she is interested in the more subjective and implicit mental experiences which do not so easily lend themselves to exact logical analysis.

GENERAL USES OF THE CHART

I. FULL DEVELOPMENT AND BIASED DEVELOPMENT

An attempt has so far been made to show how the responses of the girls studied were classified on the working chart, according to the aspects of experience which each one finds most interesting. But the chart was not only used as a way of bringing a first order into the chaos of data that any forty minutes' talk with a living person provides, it was also used as a way of systematizing what theoretical knowledge was available. For since it was based to some extent on Susan Isaacs's description of the normal phases of development, it seemed legitimate to use it, in its entirety, as a picture of what should be the end or final state of the developmental process—as a theoretical picture of the ideal personality against which individual lacks or distortions of development could be estimated. Some such norm, either explicit or implicit, is of course essential in all educational and remedial work, and it is safer to have it explicit than implicit, so that the bias of one's own particular tendency can be deliberately allowed for in judging others.

In terms of this chart, the complete person is one who can make use of both physical and emotional responses to his surroundings, and know his own experience both intuitively and intellectually, as occasion requires; also, according to

the demands of the situation, he can turn his attention inwards or outwards upon all these levels of experience.

In considering how different people normally achieve integration between these various aspects of experience, use was made of Jung's idea that in each person certain functions are usually 'inferior', or undeveloped.

It is a commonplace of Freudian theory that groups of ideas concerned with a certain painful subject or impulse can be shut away in the mind, and never consciously thought about, in spite of their emotional importance to the person; but Jung points out that not only particular sets of ideas, but also whole aspects of one's relation to one's surroundings, can be either conscious or unconscious, although he uses the word 'unconscious' here, in a more relative sense than Freud does. So Jung formulates important differences between people in terms of whether they accept, for instance, receptive physical experience as a determining factor in their conscious lives, or whether they tend to leave it out of count, as the girl does who says—'I always like to be doing something.' Further, Jung points out that it is, of course, really impossible to eliminate a whole aspect of experience. One must, for instance, be physically receptive at recurrent intervals, determined by the needs of one's body, however much one may chafe against physical inactivity; and if one does not consciously accept this need, then one's responses that are in terms of it tend to be crude and infantile. To take another instance, Jung says that the person who over-values intellectual thought and excludes emotions, belittling them, not liking to take them into account, is liable because of this to have feelings that remain, unknown to himself, immature, highly personal, over-sensitive, petty, suspicious and resentful.¹

This generalization of Jung's threw considerable light on some of the replies to the postcards; for instance, the response to dangerous situations. Some girls quite frankly disliked certain situations because they said they would be

¹ C. G. Jung, *Psychological Types*.

afraid; for instance, Diana gave the following 'dislikes' of dangerous situations:

<i>Dislikes</i>	<i>Reason</i>
Firemen at work	I wouldn't be brave enough to be a fireman.
Acrobat	that always gives me the willies.

Others disliked some of the dangerous situations, but did not give as a reason that they would be afraid; some said when asked why they did not like the card, 'I don't know'; others gave a reason, but did not mention the danger; for instance, Theodora (page 129) who said:

<i>Dislikes</i>	<i>Reason</i>
Fishermen at sea	looks cold.
Horse Fair	wild.

But it was also Theodora who, not having admitted to fear in any of the dangerous situations shown on the postcards, did in fact admit to being afraid of worms, caterpillars and spiders. If fear is one of the component emotions of the submissive relation to one's surroundings, then clearly it was a relationship that Theodora had not accepted, and so it had apparently emerged into her consciousness in an infantile and irrational form—fear of something that could not possibly hurt her. Similarly, Lily (X.O.) aged thirteen, (I.B. about 140), who was reported by the staff for general quarrelling and violent behaviour, admitted to no normal fears; she was passionately interested in games, she liked to read 'Buffalo Bill books and Red Indian stories,' her ambition was:

to buy a huge farm and breed horses and dogs. Live a roidy life going to pictures, theatres, live in the country and have a car and horses and dogs of my own. They would have to be the latest models.

Also one of her day-dreams was of 'going to Africa to hunt lions and fight tigers with a revolver only'. And the only fear that she admitted was an obsessive worry about some story of a tramp who had attacked a small boy and tried to cut off his finger.

It was concluded, therefore, provisionally, from results such as these, that the feeling of fear in a dangerous situation is one of the possible normal relations to one's surroundings, and if this response in oneself is not consciously accepted, it is liable to emerge as irrational fear of situations which are either not dangerous, or so unlikely as to make any worrying about them quite irrational. It was interesting to note that those children who could not admit being afraid also tended to be those who found anything quiet or old 'dull, miserable'. It was also noted, however, that there were a few girls who showed no knowledge of fear, either rational or irrational; but it is likely that further investigation would have revealed its presence.

2. THE CO-ORDINATIONS DEMANDED BY SCHOOL LIFE

I have tried by these examples to indicate the relation to the chart of some of the answers obtained in the interview and to show how they seemed to indicate the direction of a girl's 'sentiments', that is, her conscious attitude towards different situations; and also, indirectly, by the gaps in her answers, how they hint at her 'complexes', at the aspects of experience she finds it difficult to bring into consciousness.

So far the material discussed has been obtained mainly from the interview and the questionnaire. It became apparent, however, as the experiment developed, that not only this type of material, but also observations of behaviour in class could be discussed in terms of the chart. For it became clear that any attempt to understand the patterns of responses demanded by school life must involve an understanding of the interaction between the different levels described in this chart. For instance, an ordinary school

day requires continual periods of physical passivity, as is shown by the oft-heard injunctions 'Do try and sit still,' 'No talking, please.' It also requires an attitude of emotional receptivity, a willingness to submit to commands, instruction, and to believe that others know better than oneself; but, while prohibiting physical and emotional expressiveness, and insisting on these being turned inwards during large periods of the time given to lessons, the system also demands that interest in knowing shall be turned outwards and fixed on whatever is being taught. Also, at recurrent moments, it requires a swing over to the expressive attitude, instead of the receptive, and that on a high level of mental activity; as when a girl is suddenly asked to explain some point, to work a sum upon the board, or to translate a sentence. How difficult this highly complex controlled integration is to some children can easily be seen by watching any class; some can achieve sitting still and drinking in information easily enough, but when it comes to the swing over to assertiveness, and they have to stand up, marshal their own thoughts and ideas into a coherent statement, and speak them out in a voice loud enough to reach the mistress, they are completely at a loss. Others can achieve sitting still, but the turning inwards of their physical energies brings with it a turning inwards of their attention, and they become lost in day-dreams. Again, the school organization requires that emotional assertiveness be rigidly excluded during lessons, but form prefects and captains must quite suddenly, when the bell rings, try to produce powers of assertiveness sufficient to keep twenty or thirty of their contemporaries in order, at least for the few minutes between lessons. Again, take the girl who has found out well enough in her years up the school how to learn her lessons and do what she is told, how to satisfy her desire for power indirectly through knowledge and through her capacity to work out difficult problems and answer difficult questions. When finally she reaches the Sixth Form, she is often suddenly made a

prefect, being then asked to control the behaviour of others whenever she finds them doing things they should not do; but actually she may have no capacity at all for responding on the level of emotional assertiveness, for using her emotional power directly, for pitting her will against some one else's, for putting a decisive note in her voice, and feeling that quiet determination that some one else shall do as you want, which seems to be one of the bases of control of others. Unless she happens to have been chosen as form prefect in the past she will probably have had no opportunity to practise these attitudes; in her ordinary school work, in fact, they would very likely have been frowned on if she had tried to use them unofficially. The result often is that she is quite ineffective, and miserable as a prefect.

3. THE 'B' FORM AND INTELLECTUAL WORK

Some of the staff comments on the problem of the 'B' Form girl may also be considered in the light of this chart. Several mistresses mentioned that they would rather have a 'B' girl to help them with any social activity: that is, activities in which the quick give and take of social contacts make intuitive solutions more useful than logical ones. The comment that 'B' people find it hard to write down the steps by which they reach the solution to some problem is also significant. Further, it appears that some of these 'B' children are liable to suffer considerably when an attempt is made to force them to function in terms that do not come naturally to them; as is shown, for example, by the following answers:

Emma (B.B.) aged 15 (I.B. between 100 and 110, has been nearly ten years in the school):

I really dislike school work, but especially learning preps., they make me go all funny inside thinking about it beforehand. I just *dread* it, and stay awake all night worrying about . . . it's horrid. You see, I'm not bright at all, I would like school if there was no prep at all, and we had

afternoon lessons every afternoon—and no extra homework at weekends when we are trying to forget school.

It is interesting to note that it is the homework that worries her particularly, and to compare this with the remark made by one of the staff that the 'B' girls need lessons more than the bright ones; it seems that, since by temperament they are not at home amongst the abstractions of the intellectual level, the concrete social situation of the classroom gives them more support and stimulus than working silently alone. This girl actually says she hates being alone, and cannot sit down to read: 'It seems such a frightful waste of time.' Her great ambition is to run a hotel, and her wish from a fairy god-mother would be:

Having made such a mess of school life in early years to make up for it now, but not to be brainy. I think I despise brainy people.

She also says she 'revels in cooking' and could 'dressmake all day'.

The feeling of anxiety when asked to respond on the intellectual level does not seem to be confined entirely to those who are intellectually below average or who are temperamentally not interested in abstract formulation. For instance, Tina (Y.C.) aged sixteen, who is planning to go to the university (she did not take the intelligence test) says:

I like Greek best, because we are learning new work, and Miss X is extraordinarily patient and does not test us as often as other mistresses. I dislike being tested often on homework, even if I have learnt it, I am afraid I shall do it badly. I think I dislike French most, it is such a finicky language and there are so many catches. I am not very good at remembering words and rules and Miss Y gets very annoyed when I forget ones I have had before.

At my last school we had no marks, I liked that much better. I don't worry often, except when I get bad marks.

. . . I don't believe in over-rushing school life with many competitions, etc. I think free time to do what you like is very valuable.

This girl was not on the Group D list, so was not interviewed, and presumably was making a satisfactory adjustment in school in spite of her fears. Her answers are also interesting as an example of how the above-average child, who is asthenic rather than sthenic in her emotions, sometimes responds to the idea of marks and competitions.

CHAPTER VII

INTERACTION BETWEEN THE LEVELS OF EXPERIENCE

I. THE CONDITIONS FOR GROWTH OF INTEREST FROM ONE LEVEL TO THE NEXT

IN order to understand what is happening when the highly complex co-ordinations demanded by school life break down, it is necessary to consider a little how such a complex integration ever gets established in the first place. It seems probable that growth of interest from one level to the next is somehow connected with the degree of satisfaction achieved for the various basic needs. For a child successfully to live through the experiences appropriate to her age, and to be ready to pass on to the next, it seems that there must be neither too little satisfaction, nor too much. Take the simplest physical receptive level, for instance; if a child gets too little of the basic comforts, too little sense of security and mothering, apparently he or she is apt to be continually harking back to this unsatisfied need in later years. For instance, Ida (C.P.) aged thirteen (I.B. between 160 and 170) was reported as 'no attention, fidgety, silly'. Her interests, as shown in the interview, seemed to be mainly in physical and simple emotional experiences, with a bias towards the active and assertive side; she disliked quiet situations, and disliked being alone, although at the same time she was not particularly fond of parties. She did not feel able to write an essay about her day-dreams, but wrote one instead upon what she would do if she were given a day's holiday. In this, which was barely longer than one page, it was noticed that she had mentioned food in six different connexions. When the mother came for an interview one of the first pieces of information that she volunteered was that the child had had a difficult birth and

continual feeding difficulties, beginning with the fact that she refused the breast entirely for the first seven days, 'simply letting the milk trickle out of her mouth'; she was then bottle fed, but was always 'finicky' about it and after a time quite suddenly weaned herself. This is the barest outline of a very interesting problem. For instance, the question arises, why had the child been unable to receive the milk that was offered her? The answer to this awaits the results from detailed studies of how infants do in fact learn appropriate feeding habits;¹ but what concerns us here is that for some reason Ida had had inadequate physical satisfaction in the earliest weeks of life, and was now showing, at the age of thirteen, a lack of interest in her lessons and an unusually marked interest in food. Actually, the findings for this child also illustrate another important principle. For it is probable that this early deprivation would not by itself be enough to account for her present tendency to hark back to it, if there were not some deprivation in the present situation as well. It seems to be a general fact that in matters of emotional growth, if it is too difficult to go forward then there is a strong tendency to go backward. And Ida certainly was finding it difficult to go forward, for it appeared that her father expected a very rigid standard of obedience from all his children, and he was quite certainly failing to give Ida the progressive amount of independence in thought and action that was suitable to her age.

If a child gets too much of the basic comforts, including the outward expression of affection, and also insufficient

¹ In a study (not yet published) of the behaviour of new-born babies, Merrell Middlemore observed that some babies show inertia at the breast, even when there is no difficulty in obtaining the milk. She adds that it is not known why zest in feeding is delayed but what is certain is that the child who passively refuses the breast is often roughly handled by the mother in the attempt to make it suck. In this way it actually suffers distress during the feed, as well as lacking ordinary satisfaction, and this unhappiness at the breast often leads to weaning and later feeding difficulties. In Ida's problem there is thus an interesting association between inability to give sufficient attention to take in mental sustenance and the early difficulty in taking food.

opportunity to do things for herself, interests again seem liable to become fixed at an infantile level; having been mother's darling too thoroughly, she wants to go on being mother's darling to everybody. For instance, Susan (E.H.) aged thirteen (I.B. between 140 and 150), was reported by the staff for dreaming through her lessons, and for insolence of manner; 'when she comes in to a lesson she bangs down her things and then settles down to thinking about something else. If you ask her a question she says "I wasn't listening."' The most outstanding observation made during the interview was Susan's extreme distaste for discussing any matter concerned with her future, shown by wriggling and fidgeting, and a petulant tone of voice; her ambition, she said, was to live a life of luxury in the country, in an old house—it must be old, she said, as she did not really like new houses at all. Her mother, who was a charming, humorously tolerant person with a deep, gentle voice which seemed to flow round her child whenever she spoke of her, admitted that she had made the child the centre of her life. There were older children in the family, step-children, but they were so much older as to make Susan seem like an only child, and the mother had done everything for her, instead of letting the maid help, because she enjoyed it so much. There was one fact that emerged during the interview which seemed to express the child's difficulty in very clear terms; at one time Susan had developed night terrors and an obsessive foreboding of her mother's death. This fear seemed to express the fact that after these years of the continual enveloping physical presence of her mother, she was totally unequipped for facing difficulties and the effort of independent living; this meant that if by any chance her mother should die she would be left completely stranded. On the other hand, since with her mother present her inborn need of a sense of achievement and new experience was continually being starved, it would only be by her mother's death, actual or metaphorical, that the girl could reach any further development at all.

Susan's day-dreams were clearly compensatory, they were full of exciting and independent adventures—she would be on a pirate schooner, with the Three Musketeers, having adventures with cannibals on a beautiful South Sea Island, wandering about as a gipsy 'pitching my tent where I wanted to' or 'have a beautiful schooner of my own, and sail about in it wherever I pleased'. The insolence of her manner, which also appeared at moments during the interview, seemed to be an attempt to protect herself by a 'don't care' mood from the anxiety caused by the basic conflict. As regards treatment, an attempt was made to persuade the mother to begin the process of psychological weaning.

2. FIXATION OF IMPULSES AT A PRIMITIVE LEVEL

Recent research, both by the psycho-analytic technique and through observations of young children, has shown how difficulties in learning the necessary physical skills in infancy induce difficulties of emotional response that may have far-reaching effects on later capacity for control. Susan Isaacs writes:

During my six years' experience in giving advice to mothers and nurses in the columns of *The Nursery World* with regard to the varied aspects of psychological care of children in the nursery, the problem of training in cleanliness has cropped up much oftener than any other single question. Training in the control of bladder and bowels forms a central issue in the relation of mother and child during the early years, and one in which the emotions of both are intimately involved, often with a high degree of tension. . . .

It is probably the most complex problem of muscular and emotional control that any of us ever has to deal with in our lives, relatively to age and experience. We often forget that. We admire the golfer or the tennis player, or the older child who learns some game of skill, never realizing that their problem is much easier for *them*, than that of the

tiny child faced with this complicated ritual of performing the bodily functions in certain places and at certain times, and at no other place or time.¹

Clearly, the development of the child's assertive and submissive impulses, the desire to do what he likes where he likes, to feel his own power to over-ride other people's wishes, and the desire to submit to their wishes, will both be tremendously affected by the mother's attitude. It was of course not necessary or feasible in this experiment to go into the detailed history of habit training for each child; but it was often quite easy to see from the mother's character and remarks what her attitude must have been in these critical problems of infancy, and what pattern of relationship had been set up between her and her child. For instance, Evelyn (E.W.) who was reported for being violently 'up against' discipline had a mother who said—'I was over-anxious to have a model baby and think I over-imposed my will,' and Liz (page 122), who was reported for being extremely uncontrolled, had, so says her mother, 'a splendid nanny' and the children were 'frightfully well behaved'.

To develop a normal capacity to assert yourself and submit yourself, there must apparently be some one stronger than you to whom you can yet trust yourself, and there must also be some one either weaker, or willing to play the weaker part, on whom you can learn assertiveness, learn how to use your power in a controlled and constructive way, rather than in the destructive forms of violence and defiance natural to babyhood. This need to test out in reality the effects of one's own power seems to be particularly important. In many households the only forceful things a tiny child can do are, because of her inability to co-ordinate her muscles, destructive things: if she wants to use her pushing muscles, as likely as not she knocks something over,

¹ Ursula Wise (Susan Isaacs), *Habit Training*, Benn Brothers, Ltd., London.

if she wants to use her throwing muscles, she probably breaks something; and if she wants to control some one else, that is, to persuade them to do as she wants, she cannot put her case reasonably in words, and often the only alternative she knows is to hit them, or to kick and scream. Iris (see page 139) whose trouble appeared to be that she could not exert her power and take responsibility in school life, showed an interesting early history in this respect. The inquiry into her childhood was suggested by her attitude to animals, by the fact that she said she liked them, but was afraid of hurting them. It appeared that at the age of two and a half she had been very seriously ill and was in hospital for seven months, just at the age when she should have been learning the first stages of how to 'throw her weight about' without results too disastrous to herself and others; then, on her return home, her first act seems to have been to attack her small sister, for which she was severely punished. Since then she had apparently grown into the retiring and withdrawn person described by the staff, unconsciously afraid that if she really exerted her power she would hurt some one.

Actually, research is showing that still earlier stages in the development of a child's sense of her own power are very important. The tiny baby is so utterly dependent on adults for everything she wants that there are very frequent moments when her legitimate needs must go unsatisfied; she is hungry but must wait for the next feed; she is lonely, but, according to the modern rules, must not be picked up or played with; and she has so few resources to help her wait, not even, as yet, the certainty born of experience that her mother will come back to her in the end. But the normal physiological result of the thwarting of an instinctive desire is the building up of emotional tension; because she has no power to help herself, her sense of need often develops into a fury of rage and misery; and this in its turn, apparently, is liable to become a terrifying thing, because she has as yet no capacity to distinguish between what is real in

the outside world and what is only her own feeling and impulse; she is apparently liable to feel that her own anger and violent feelings have in fact destroyed something, that in her furious hunger she may have actually eaten up the mother who does not come to her.

This need to discover by practice and experience that her own assertive emotions are safe, not destructive things, is counterbalanced by the need to discover that it is safe to submit. In some homes, where the children are allowed to do exactly as they like, the development of submission is stunted; though more often this happens in homes where the authority is there but is so capricious that the child does not feel safe in submitting to it.

3. THE DEVELOPMENT OF THE TWO SIDES OF THE PERSONALITY

This idea that it is not safe to submit brings us to the whole question of the development of the submissive, or introverted attitude. Up to now I have avoided using the terms 'introverted' and 'extraverted'; to talk about a person as an introvert or an extravert is ambiguous, since the facts seem to indicate that most people are both; some one can be, for instance, predominantly introverted in her sensational life, and extraverted, say, in her emotional and intellectual life: or, in ordinary language, she can be on the whole physically lazy and comfort-loving, but also assertively argumentative and interested in objective knowledge. At this point, however, it is, I think, convenient to use these terms, provided they are used as adjectives rather than as nouns, and one talks about an 'introverted attitude' rather than 'an introvert', and remembers that a person may have a different introverted-extraverted bias on each of the levels of functioning shown on the chart.

The above seems to be one convenient way of formulating many of the facts in the present state of our knowledge, but it is sometimes also convenient to think of all the submissive-receptive attitudes together, that is, the whole of

the left side of the chart, as being one side or aspect of the personality, and the whole of the right side, the expressive-assertive attitudes, as being another. Again if we return to the idea of an emotional mental age, it seems that different levels within these two halves of the personality may grow at different rates. For instance, the average person whom one meets in the world of affairs has reached a certain degree of maturity on the active side; for ability to do a job and earn a livelihood usually requires a fair degree of purposeful activity and control. But often on the receptive side he or she has not reached beyond the level of interest in physical comfort, and emotional dependence. Thus, the successful business man, when he comes home tired from a day's work, often becomes the dependent baby as soon as fatigue forces him to rest from assertive purposeful behaviour. When he has nothing to do, he either goes to sleep, or wants to fill in the sense of emptiness by substitute assertive satisfaction, such as watching football matches and so on. In general it seems that nearly all of us find one form of response easier than the other, but whether the bias is usually due to inherited constitution or to very early influences it is as yet impossible to say.¹ It is a bias that seems to occur equally in men and women, so that there are some men who have become capable of a mature introverted attitude and some women who have achieved a mature extraverted one, although this preferred method of responding to experience seems also to be influenced by the physiological rhythms of the reproductive life.

4. A CONFLICT IN ADOLESCENCE

Actually, the exact nature of the mature forms of the submissive or introverted attitudes are very little understood

¹ It is important to emphasize that in this experiment the use of the term 'bias' is purely descriptive. It indicates only that the particular total conditions of the child's life are making one method of response easier than the other, and that under different circumstances she might develop a different tendency.

at present. But what little is known is of vital importance in school life, for the physical and emotional changes that come about when a girl achieves puberty seem often to rouse deep conflicts between the submissive and assertive attitudes. For instance, Charlotte Bühler writes:

. . . The child's response to the educational experience from the eighth to the twelfth year is preponderantly positive, characterized by extraordinary vitality and endurance and as a rule highly successful. During the following developmental phase, i.e. 12 to 17 years, a metamorphosis from a fundamentally positive to a negative attitude takes place; that also has a physical basis. The psychic balance of the 8-13-year-old was the product of good physical condition. The physical health and strength of the 8-12-year-old furnished the foundation for his psychic balance. Increased activity of the ductless glands and the onset of sexual maturity seem to disrupt the balance of the organism so completely that the psychic equilibrium also suffers. The manifestations of this upheaval differ for boys and girls. There is a greater similarity between the interests and activities of boys and girls between 10 and 12 than at any other period in the course of their development. On the other hand, there seems to be a greater difference in these respects between the 13-16-year-old boys and girls than at any other period. . . . Whereas the girl becomes increasingly lazy and passive, the boy seems to be unloading superfluous strength and energy in his play activities. We have called this period the negative phase. For the girls it is characterized by diminished efficiency: they become restless, unstable, generally dissatisfied, passive and lazy. Occasionally they exhibit the aggressive behaviour that is generally characteristic for the boys.¹

This general tendency towards an introverted attitude at the time of puberty affects different girls in different ways. For instance, take the active 'tom-boy' type of girl who is perhaps good at games, naughty in school, and something of a leader in her particular 'gang'. To her the

¹ Charlotte Bühler, *From Birth to Maturity*, Kegan Paul, 1935.

impulse towards doing nothing induced by the glandular changes may be not only dull, as in some of the cases already quoted, but even terrifying. The feeling of something happening over which she has no control is often very disturbing, and often she finds the idea of her own femininity repellent, because it seems to involve the giving up of her will; the thought of pregnancy is often particularly repugnant to her, and, although I do not think there are any statistics relating difficulty during child-birth to character type, observations suggest that she is a type that often does suffer a prolonged labour. Actually, several parents, during the course of this experiment, asked whether a professional training in Gymnastics, for instance, would not be likely to make child-birth more difficult. No definite answer can be given without statistical studies, but it is at least possible that, if this is a fact, it is not so much the increased muscular development of gymnasts that causes difficult labour, but that the type of girl who chooses to be a gymnast and develop her voluntary muscles to the full, is often one who is markedly extraverted emotionally and finds it difficult to submit her will to the overwhelming involuntary muscular process of child-birth.

It seems that the idea of submitting one's will also tends to become associated with the idea of death. Instances of the fear of death amongst the children interviewed have already been mentioned here. It is interesting to note that Nesta (page 130) who was, according to the staff, potentially brilliant, but who had recently 'gone off' in her work, had also recently lost her father and that a marked change in her attitude had dated from the father's death. Obviously, the loss of a father produces intensely complicated emotional reverberations, but in her case there were what seemed to be particularly significant attempts to defend herself against the idea of the submissive side of life; for instance, she defended herself against the idea of one day having children with the comment 'too much bother', and against the thought of religious submissiveness and

submission to an ideal with the comment 'silly'. And whereas in children of average or low average intelligence, living simply on the physical and emotional level, such an attitude to religious experience did not seem to indicate any underlying conflict, as judged by the fact that they were able to talk about their likes or dislikes of such things quite unemotionally, in her case, and in some others of high intelligence, there seemed to be an element of over-protestation shown in the vehemence with which they expressed their dislike.

The scarcity of our knowledge on the subject of the exact nature of the mature levels of the submissive attitude has already been mentioned. It seems, however, that when the inward turning attitude develops from the phase of a simple living of the submissive emotions into an awareness of them, there grows, amongst other things, a conscious submission to inner forces; sometimes this is expressed in religious terminology, as submission to the Will of God and the Inner Light; sometimes it is expressed in terms of that sense of daemonic inspiration which seems to occur amongst many creative artists. It appears also that to some this awareness of the final outcome of the submissive impulses comes easily and there are no conflicts aroused; while to others it does not come at all because their receptive life is lived entirely on the physical level of sensory comforts. But to a third group, perhaps those who are potentially rich personalities in that they will eventually be able to understand both the extraverted and introverted aspects of life, the process of reaching awareness of their own submissive feelings is accompanied by struggle and stress. Such a girl is dimly aware of the power of the inner life but cannot bring herself to accept it or develop a deliberate relation to it, so she tends to build up defences against it, and to call its values 'silly'.

In Olga, (D.A.) aged thirteen (I.B. between 150 and 160) the conflict between the two sides showed clearly; the staff reported her as truculent and tiresome in manner,

the general opinion being that she was 'a tough nut'. In the interview she appeared to be both-sided in her interests, for instance, she enjoyed both excitement and quiet, she liked both being alone and at parties, and she could enjoy both physical activity and doing nothing. But she had many irrational fears; she said that she worried about such things as earthquakes and the eclipse of the moon, and she often had the feeling that the earth was going to blow up; one of her wishes was—'that my mother and father, my cat and dog, could stay alive until I die'. Her reason for disliking the picture of the Telescope in the Postcard Sorting was:

It makes me go all goosey. It's impossible to find out, it's so silly, how can they possibly tell about the stars, it's just a man making it all up in his head really.

This was said with great vehemence. She also admitted to worrying about her menstrual period and had a quite irrational belief that she was the only one amongst her friends who had achieved puberty. Inquiry into her family situation revealed the fact that she was an only child with a Jewish father and English mother; her father had had a startlingly successful career, beginning from very humble origins, and had been bitterly disappointed that Olga was not a boy. Olga was aware that he had tremendous ambitions for her, and felt grave doubts about her capacity for fulfilling them. She was not doing very well in her school work, but was interested in writing poetry, as long as nobody found out that she was doing it. It also appeared that she worried about God and about the fact that people did not agree on religious matters. In general, the interview material suggested that, contrary to outward appearances, she was a person with a rich phantasy life. This had enabled the expression in vivid symbolic terms of her doubts and fears about the bodily changes going on in herself. The whole conflict was stimulated by her father's intense emotional demands (he was said to be a 'thunderer')

and tremendous ideal of assertive outer achievement. Actually, it seemed likely that her vehement denial of the possibility of knowing anything about the stars was, in part, her way of repudiating the lofty and remote ambitions that her father had persistently cherished on her behalf. Clearly, it needed all her toughness to withstand such a father's demands.

5. THE IMPLICIT AND THE EXPLICIT PERSONALITY

The problem of how a girl of this type can be helped to find a solution to the conflict and integrate the assertive and submissive impulses is a very far-reaching one. With both the girls discussed above it was possible to explain in very simple terms something of what might be happening to them, and the staff reported that they both showed a difference of attitude after the interview.¹ One of the difficulties for this type of child seems to lie in learning to trust to the inner processes, especially since the trend of modern social life has been to grant greater value to the outward going impulses. Thus both school and practical life emphasize the importance of all that is objectively knowable; 'give the reasons for your answer' is a frequent command in school, and mental productivity must be carefully planned and controlled by the clock. To many people this is in fact the only kind of mental functioning that exists, and anybody whose bias is in the opposite direction is labelled queer or vague.

An American specialist in individual differences has summarized the position:

In addition to docility and assertiveness, an individual expresses himself in two other elemental ways, *which may be called the implicit and the explicit aspects of personality*. The implicit aspects of personality are the expressions of a man's inner life—what he is to himself; while the explicit are the expressions of what he does or achieves—what he is to

¹ Nesta actually regained interest in her work, and, at the end of the year, achieved a brilliant result in matriculation.

others. Thus it is possible for two persons of much the same mental calibre to find expression for their abilities in diverse ways. The two aspects are not sharply divided nor mutually exclusive, but the one may dominate the other; for a richness of the inner aspects is not necessarily associated with a strong and aggressive personality; nor is a poorly furnished inner life necessarily coupled with a weak personality. The furnishings of an individual's inner life can be rich and varied, while the impulse to overt action and achievement may be slight. Such a person reflects, and he assumes the attitude of a spectator in the world. On the other hand, a strong and efficient actor in life may be little concerned with reflection and with his own mentality, although he may be keenly perceptive whenever the occasion demands decisive action.

. . . The first type includes artists, poets, scholars, and philosophers, who express their individuality principally in symbolic form. . . . Ability—and even genius—expresses itself in both types of personality. Great writers, great artists, and great thinkers are apt to have a genius for implicit behaviour which lends to their undertakings a richness of design that only a wealth of representative forms of expression makes possible. Great leaders of men in action—army generals, industrial leaders, and technicians—must rely upon perception more largely than upon reflection. Abilities of both kinds are equally real; and genius in one is no less an achievement than genius in the other. While the extreme expressions of implicit and explicit types of personality may have little in common, the middle ground occupied by most persons calls for an individual who is both *reflective* and *perceptive*.¹

A fair proportion of the 'D' group interviewed in each school showed themselves to possess a markedly inward turning bias of personality; several of them expressed feelings of dissatisfaction with themselves on this account, they were striving after the successes of the explicit type and failing to realize their own assets or the meaning of their

¹ F. S. Freeman, *Individual Differences*, Harrap & Co., 1934, pp. 335-337.

own gifts. For instance, Clare (H.A.) aged fourteen (I.B. between 180 and 190) was reported for carelessness, forgetfulness and apparent loss of memory. She found extreme difficulty with Mathematics, even becoming ill if there was to be a test, and this dated from the time when her menstrual periods began. She was discontented with herself, feeling that she was weak, but would like to be a leader and also wished she was a boy. She thought that 'turning the other cheek', which came easily to her, was 'so luke-warm' and despised herself for it. But her Postcard answers and her drawing showed a marked reflective sensitiveness, and the art mistress had picked her out as one of the half-dozen girls in the school who was particularly gifted and sensitive in her work. Actually it was possible to discuss with her the implications of her own temperament and femininity, and to point out the effectiveness of her own implicit mental processes even though she was not aware of each step of the process; the staff reported a distinct improvement in her Mathematics after the interview.

CHAPTER VIII

ANXIETY IN TERMS OF THE CHART

I. TWO WAYS OF RESPONDING TO DIFFICULTY

I THINK it is worth while to consider here the problems of the over-anxious child in some detail, for it will be seen from Table I that nervousness, over-conscientiousness and the like were fairly often mentioned as difficulties amongst the children reported for interviews.

Observation and experiment, both with animals and children, has shown that when a bodily need or impulse is frustrated, the energy thus blocked from expression in action builds up and tends finally to spill over into that kind of response which we call primary emotion; or, to consider it diagrammatically, the response moves up from the first level of the chart to the second. We can easily observe in a young child, for instance, that when she is prevented from getting something she wants very much, she either becomes angry or violent or screams, or else sobs inconsolably. These, of course, are extremes of behaviour, more moderate forms being shown in general assertiveness or submissiveness, for when a desire is thwarted it may either arouse a person to assert herself, to try harder, the more the opposition the greater her determination to dominate and master it; or it may make her give up altogether, submit, feel inferior to the situation, 'give in' and ask for help. The kind of response a person will make seems to depend partly on a constitutional bias of temperament, partly on immediate bodily conditions of fatigue, illhealth and so on, partly on the character of the other people in the situation. Susan Isaacs notes, for instance, that in some children—'rage impulses and intolerance of frustration are specially marked from the earliest days.'¹

¹ S. Isaacs, *Psychological Aspects of Child Development*, p. 17.

The typical assertive emotion in its primitive form is, as we have seen, rage, and the typical submissive emotion is fear. Under the influence of memory of past experiences, and expectations of future ones, these two impulsive emotions apparently tend to become the more diffused attitudes of hostility and anxiety. It seems also that the inter-relation between these two states can become very complex and that they play a very great part in the development of individual character. Various schools of psychology emphasize different aspects; according to Freudian interpretations the violence of the infant's own rage at the inevitable frustrations of early years, and at her own impotence, becomes something in itself terrifying and a deep source of anxiety. Other observers emphasize the importance of anxiety that is more externally produced, as through the excessive domination by an adult, for instance. Thus anxiety is looked upon as the natural outcome of a need to submit (or even to rest from asserting), which has been frustrated, just as anger is the natural outcome of the frustrated need for power. Probably both the derived anxiety and the simpler direct form exist and are important; in both cases the child comes to feel intensely her own inadequacy, though in one case it is her own primitive sense of power that she is afraid of, while in the other it is her impotence.¹

2. FEELINGS OF INFERIORITY

Typical difficulties of the submissive temperament were shown by Nan (E.W.) (page 142) who, it will be remembered, said that it is so much nicer to do things with people who are on the whole better than oneself, and would also 'hate to be a fireman because I'd be sure to do something wrong'. She was reported by the staff for inattention,

¹ According to the Freudian school these two feelings would be looked upon as two aspects of the same thing, the child who is too afraid of her aggressive impulses is liable to curb them too completely; then, having denied her own power, she feels continually aware of her incapacity to act appropriately.

extreme lapses of memory and also apparent inability to make any effort, in spite of having good brains; in addition her mother reported continual slight physical ailments, although there was, according to the doctors, nothing really wrong with her.

The French psychopathologist, Pierre Janet, attempts to explain such symptoms by the concept of 'lowering of psychological tension'. He maintains that the capacity to concentrate upon what is happening around one, and so behave appropriately, requires a high degree of 'psychological tension', by which he means some kind of mental force which is lowered in quality during sleep, fatigue, illness and so on. If, however, we here combine Janet's idea with Jung's distinction between inward and outward turning interests, the symptoms of the 'inferiority complex' can then be looked upon not so much as a lowering of psychic energy as a turning of it inwards, with the result that there is an emotional experience of inner need, instead of an emotional experience of power.

This inward turned emotion is a particularly difficult matter to study, as are all the implicit responses, simply because they are implicit. The most detailed studies of its distorted forms have been made by the Freudian School, and they consider the matter chiefly in terms of those mental images or phantasies which the infantile mind actually uses in trying to solve its own emotional problems. The use of these terms by the psycho-analyst has the great advantage of keeping close to the observed facts, but it has the disadvantage, from the layman's point of view, that the terms are liable to appear so crude and far-fetched that they cannot be used as convenient instruments of thought.

3. ONE-SIDED WAYS OF DISPERSING ANXIETY

Smith and Culpin classified the nervous symptoms they observed in industry into two main groups, those in which the main characteristic is fear, and those in which it is

'unreasonable drive'. In terms of the chart those with marked fears can be looked upon as having a bias towards the introverted side in their emotional responses, and as giving this direct expression; while those with 'unreasonable drive' seem to be people in whom some extraverted capacities are also strongly developed, thus enabling them to seek escape from their introverted emotions in the excessive strength of the opposite type of response.

There appear to be, in fact, a great variety of ways of escaping from this tension of anxiety and sense of inadequacy. Here I have tried to describe some of them schematically in terms of the broad functions as shown on the chart.

(a) *Through Physical Experience*

Since in its origin anxiety seems due to a deprivation of physical satisfactions, it may be dispersed by a renewal of physical satisfactions. Every mother knows this when she picks up a crying baby to hug him or give him his bottle, or gives an older child a piece of chocolate. But it may also be dispersed by a swing over to physical experience in the active side; for most people know how depression, which is closely allied to anxiety, can be dispersed by hard physical work. Whether a person suffering from introverted emotional tension will choose to give himself an extra good dinner or to go for a brisk walk will probably depend in part upon circumstances, but also in part upon his general bias towards active or receptive responses. In school the fact that physical activity disperses anxiety is probably one of the factors making for the tremendous interest shown in games.

The above are normal physical methods of dispersing tension. A more abnormal way is compulsive irrational acts which are felt to have a magical significance, and to provide a magical protection against the source of the anxiety. No marked examples of this, however, emerged during this experiment, although the traditions of 'crossing

thumbs' or 'touching wood' to avert possible danger are probably simple examples of the same mechanism.

(b) *Through Emotional Experience*

Another very commonly used method is to attempt a direct swing over to explicit emotional responses. This is shown in the person who is over-assertive to cover her shyness, facetious in order to avoid a difficult issue, or boisterous in order to make herself believe in her own 'don't care' attitude. Sometimes the explicit emotional response is sought vicariously and then she wants jazz music and what Lily (page 146), called 'a roidy life of cinemas and high-powered cars'.

Sometimes escape is sought through the power to attract other people. Several of the girls interviewed were reported by the staff as excessively interested in boys, and so preoccupied with their clothes and cosmetics that they could not attend to their lessons at all. In some of these cases it was found that there had been factors in the home environment making for a deep sense of insecurity; in others the sense of failure induced in a girl of rather low intelligence by the demands of an academic curriculum seemed quite sufficient to account for somewhat obsessive attempts at compensation.

(c) *Through Intuitive Experience*

To plunge into purposeful activity, to busy oneself with practical affairs and a variety of social contacts is often an effective way of dispersing anxiety and depression. The excitement and interest of new experience, of 'going somewhere', of 'getting something done' are also effective. It was often reported by members of staff that a girl in a 'B' form who might be gloomy, depressed, unresponsive during lessons, entirely changed in manner and mood when there was some social entertainment to organize. Another traditionally effective method is foreign travel, for to travel abroad used to be considered one of the stock remedies for

a broken heart; one or two of the children interviewed seemed to have an almost obsessive interest in foreign travel, they could express no other hope or ambition but to get away and see the world.

(d) *Through Intellectual Experience*

To a person with constitutionally high intellectual endowments to escape into argument and logical abstractions, is very tempting because of its sureness and precision. (cf. Margaret, page 138.)

In fact the need for the sense of security attached to problems with definite answers often seems to be one factor driving the intelligent child into the mastery of logical techniques. But often it leads also to obsessive thinking; they become unable to stop thinking even when they want to, and they cannot stop because they are looking for something that cannot be found, they are trying to find an answer in terms of pure logic for a problem that exists in terms of emotion. Smith and Culpin say of the second group in their classification:

It is not easy to detect these people, for their symptoms may not be expressed in unusual behaviour and the subjects usually do not call themselves 'nervous', though they may admit to being 'nervy'. They rarely display their mental state; they believe strongly in the power and importance of self-control, which they exercise consciously in various directions. They tend to overwork, and give the impression of taking the line of greatest resistance. When a breakdown comes it is usually ascribed to overwork though the overwork itself is a symptom and not the cause of the state. They may be over-conscientious either in general or merely with regard to some particular. The obsessional subjects tend to be intellectually superior, some occupying important positions; yet their mental conflicts, in which they use up much energy, seem to prevent them from attaining their highest possible efficiency.¹

¹ M. Culpin and M. Smith, *The Nervous Temperament*, H.M.S.O., London, 1930.

Here the emphasis is not only on logical activity but also on that kind of 'purposeful assertive activity that is usually called 'will-power'. In this experiment one or two girls were mentioned by the staff on account of the tendency to overwork, but on the whole this was not a trait that most of the staff included in their concept of 'difficult' behaviour; that it did exist as a difficulty was more apparent from some of the parents' comments than from those of the staff, and it arose chiefly over the question of keeping to the required time-limits in homework. Other aspects of this method of dealing with anxiety by intellectual activity were shown, for instance, by those who put Mathematics as their favourite subject, with the reason for liking it: 'You always know when you are right.'

4. DISPERSING ANXIETY THROUGH FINDING A SOCIAL FUNCTION

The above descriptions show various ways of attempting to solve the basic conflict between the inward turning and outward turning impulses of the personality. Observation suggests that they are not all equally satisfactory, for in so far as they give greater weight to the outward going impulses they tend to leave the inward turning impulses without adequate expression. There are other activities, however, which manage to solve the basic conflict by embodying within themselves impulses from both sides, and these are highly important from the point of integrated stability. I think it is worth considering them in some detail here because they seem often to form the basis of permanent vocational interests.

It seems that the most normally stabilizing method for dispersing anxiety and inferiority feelings is by finding some activity which relates a person more closely to a group of her fellows. By some kind of useful activity, she can, at one and the same time, satisfy the need for assertiveness and also win the esteem of her fellows, thus satisfying the receptive impulses. The immense integrative importance

of finding a social function in relation to one's fellows will be discussed more fully in the next section; but here there are some interesting points to be considered, particularly in connexion with the markedly over-anxious temperament. For in this type of child emotional contacts with others seem often to be too fraught with tension to permit direct discovery of social function; she cannot immediately find her place in any social group, she usually dislikes parties, and is generally rather apart and 'out of it' in the general social life of her form. Experience shows that it is most often quite useless to try by arguments and exhortation to persuade her to join in. What she seems to need is some bridge, some activity which brings reassurance, and also lessens the tension which otherwise seems to inhibit all her relationships with the group. The most effective 'bridge' activities seem to be what is usually called creative work, whether on the physical level or the level of intuitive expression.

5. DISPERSING ANXIETY THROUGH CREATIVE WORK

Cooking, gardening, needlework, handicrafts, carpentry and so on are all activities which involve a certain amount of outward turning interest and muscular activity, but at the same time they seem to satisfy some of the inward turning impulses. Possibly because the basis of a sense of insecurity is the fear of loss of the necessities of physical life such as food, warmth, or shelter, the creation of some object which directly or indirectly serves to fulfil these needs is satisfying.

Of course any work that is paid for, even if it is not 'creative' in the narrow sense, can have a strongly integrating effect, in that it combines outgoing activity with potential satisfaction—through the money earned—of the receptive impulses; but in activities which involve 'making something' there is also more immediate receptive satisfaction, whether the activity is paid for or not. Some

psychologists have tried to make lists of what they consider to be the primitive instincts of man, and have included an instinct of constructiveness. Others say that the impulse to construct is an offshoot of the female reproductive instinct, and that the male of the species also has it in varying degrees, because the human personality is bisexual. According to Freudian theory the impulse to construct something is the impulse to 'make good' after the imagined effects of the destructive rages of babyhood. Whatever the theoretical explanation, there is no doubt about the existence of the impulse to make something, or about the stabilizing effect of having given it expression.

This shifting of the conflict from the emotional to the physical level and there finding a solution for it seems to be paralleled by the shifting of the conflict upwards from the emotional to the intuitive level. It seems probable that if the inward turning impulses of the predominantly introverted person are accepted and understood, if there is no attempt to escape from or defend oneself against the anxiety, then it is liable to build itself up and as it were spill over into imaginative creation, or into an awareness of the inner life; thus the person develops the capacity for implicit thinking described by Freeman, and becomes aware, in terms of a personal symbolism, of what goes on within him. Here again there is an integration of the outward and inward turning impulses, for any imaginative creation involves a double awareness of the inner stresses and strains and also perception of those outer forms which are selected to convey the inner meaning. The exact mechanism of this process by which the introverted emotion spills over into the inner awareness is not understood, and very difficult to conceive, but perhaps a useful analogy is the corresponding process in the explicit responses. For here the emotional response of anger that is liable to build up when physical activity is thwarted can also emerge into the level of awareness; there can emerge an intuitive perception of ways and means by which to

overcome the difficulty, as for instance when a person who finds himself locked in a room stops banging furiously on the door and sets to work to find ways of picking the lock. It is not at all clear, however, what factors determine whether the emotion will give place to understanding, or whether it will expend itself, if on the assertive side, in fruitless rage, or in misery and tears if on the receptive side. The normally mature person on the assertive side seems able usually to skip over the emotional response to a difficulty and concentrate on the attempt to understand it. If this is the case then it would seem that, on the receptive side, anxiety and depression are not an essential preliminary to imaginative creative work, although they are very frequently observed to occur.

6. CONCLUSIONS AS REGARDS TREATMENT

It follows from this that possibly the way to help a child who is over-retiring, shy, tongue-tied, may be not to try to force her directly into assuming a dominating role, but to help her to find forms of expression for her inward turning impulses. Since her attention is, perhaps by nature, turned more inwards than outwards, it will do violence to her nature to try and force it continually outwards; but if encouraged to creative expression in any material towards which her other gifts incline her, she gradually acquires confidence in what is implicit in her; if she is inclined more to interest in physical experience she can be encouraged to do cooking, gardening, handicrafts and so on, and if she has more interest in mental life she can also be encouraged to a free symbolic expression in any material that her sensory gifts make appropriate—such as clay, or paint, or the imaginative use of words.

The theory that the tension of anxiety can often be most satisfactorily resolved by mental creativity has been particularly developed in practical re-educational work with nervous children and over-retiring adults. According

to this theory anxiety is a normal phase of the creative process, which should be recognized and accepted for what it is. It stresses the great part played in the production of anxiety by the presence of over-forceful dominating people in the child's environment, but it maintains that this anxiety can be used to heighten the creative powers, as long as no defence against it is sought. Further experiment in this field is much needed, but is, naturally, very difficult to carry out.

Some confirmation of the soundness of this method comes from the observation that once confidence in the inner life has been achieved, then the outward turning impulses also become more fully developed; being now no longer preoccupied with doubts about herself, the over-introverted person can turn her attention more to outer affairs, and can develop sufficient capacity for action to enable her to work. Actually, however, she will probably never function as happily in the world of affairs as the naturally extraverted person; she will always require frequent periods of time to herself for the further development of the inner life. Further, this observation does not run counter to Freudian findings, for if the anxiety of the markedly anxious child is derived mainly from fear of her own aggressive impulses, then it is likely that the development of her inner life helps her to realize that she is not all bad, and so she becomes more able to trust her own actions, she becomes less burdened with fear of doing the wrong thing.

The phrase 'reassurance through function' is used by the Freudian school, but it seems that for some the creative function is at first more reassuring than the assertive function. Several times in the course of this experiment it was reported that a Head Mistress had tried to help an over-retiring girl by giving her a position of responsibility, but the girl had not shown any signs of improvement.

CHAPTER IX

TEMPERAMENT AND VOCATIONAL CHOICE

I. KNOWING WHAT YOU WANT

ONE particularly interesting aspect of the answers to the questionnaire filled up by the girls was the great individual variation in capacity to say what they liked, or what they wanted. In the terms of the chart, to be able to know what one wants is a skilled expressive act that integrates both the inward and outward turning aspects of the mind, since it requires a sensitivity to inner need together with sufficient outward turning attention to be able to select the outer possibility in which this need can be expressed. Jung points out, for instance, that the person who is over-balanced towards interest in the outer world and pre-occupations with external affairs often reaches a state in which he no longer knows what he really wants. In this experiment Evelyn (E.W.) aged fifteen, I.B. between 110 and 120, showed a markedly assertive bias and also a very marked inability to know what she wanted. In the list of interests in the questionnaire she marked 'animals' as 'liked very much', but marked nothing else at all; in the interview she added 'babies' and 'cooking', and then crossed them out again immediately and also crossed out 'needlework'. Under the heading of 'special hobbies' she put nothing, and also could not answer the question, 'What would you do if you were offered a whole day's holiday?', or say what three things she would ask of a fairy godmother. In the interview when asked what she wanted out of life, whether, for instance, to be rich or famous or important, or do good in the world, she only said: 'certainly not to be rich; I wouldn't know what to do with the money.' She had one vocational ambition and that was to take up agriculture, and eventually it emerged that she

had two other wishes, to be a boy and to wander about the world. As for her overbalanced assertive qualities, the staff reported that she had at times been physically violent, and seemed 'to take her fun in breaking rules'. Further, the mother reported marked assertion and violence from birth; she had torn up her sheets, had her fingers in everything and been very mischievous. She had had temper storms, but never cried, and hated being fussed over, being 'amazingly full of guts', and later showed a contempt for any one who showed distress. When she was five a younger sister had been born; the mother did not think that Evelyn had shown any jealousy, but had forbidden her to touch the baby because she was so strong she might hurt it. Discussion with Evelyn herself showed that she felt thoroughly disgruntled at home, and though there were several things that, with the help of the interview, she had now discovered that she wanted, such as more opportunities for riding, it had never occurred to her to ask for this, although her family were very reasonable and would probably have given her what she asked for. The possible causes of this extreme emphasis on independence and assertion are very interesting, and probably partly connected with her mother's over-dominant attitude in babyhood. The main point at the moment, however, was that Evelyn had quite failed to develop a technique for expressing her needs, since she found it so difficult to turn her attention inwards or put herself in the embarrassing position of asking for something; instead, the thwarted sense of need had expressed itself in sulks, mulishness and violence. Other cases were observed where the bias towards assertiveness seemed less marked from birth, but the home environment had been more stultifying; for instance, there had been a mother who was so certain that she knew what was good for her child that the child had never had a chance to discover what she needed for herself, and only developed a defensive obstinacy to protect herself from the strength of her mother's personality.

2. PERSONALITY AND VOCATIONAL GUIDANCE

In that special branch of applied psychology which deals with vocational guidance, an essential part of the work is what is known as 'job analysis'. Here the psychologist seeks to find out by study of the worker in relation to the work, what particular abilities and qualities of personality the person who succeeds in it actually possesses. In many vocational studies the kind of personality that different occupations require is described in terms of separate qualities, or traits—such as 'initiative', 'tidiness', 'accuracy', 'assertiveness', and so on. These terms, while undoubtedly convenient in a superficial study of personality differences, were not considered quite adequate for such a study of adolescents as was attempted in this experiment, since in adolescence the character is still in a state of flux, and labels which may perhaps be useful for describing adults may give a false impression of finality in children. The problem, therefore, of relating a girl's characteristics as diagnosed in school, to the varying requirements of occupations, was considered in terms of the changing adjustments illustrated in the chart, and particularly in terms of the conflict between the inward and outward turning impulses. It is quite beyond the scope of this work to give any detailed classification of occupations in these terms, but a few aspects are mentioned below to indicate the general approach.

In the last chapter several possible ways of escaping from the emotional experience of need were mentioned, many of them involving a swing over to the outward turning activities. There is another common way of dealing with such tension which has not yet been mentioned, that is by projecting the sense of need itself outwards on to some object in the environment. It is a commonplace of Freudian theory that impulses which are difficult to face in oneself tend to become projected outwards so that one reads into other people's actions one's

own motives, and, for instance, imagines one is hated when one is really hating. This last example is the one most usually quoted, but there is another that has peculiar importance for vocational guidance. For it seems that there are many people who are competent and successful in their outer affairs, who yet find it very difficult to accept the emotional experience of need or lack in themselves; the result seems to be that they often become deeply aware of the needs of other people, particularly of those who are in that inferior position which they themselves find it difficult consciously to accept. Sometimes it is the defencelessness of domestic animals that rouses their most passionate energies, sometimes they feel themselves to have a passionate understanding of the needs of children, or of the sick, or of the destitute. This projection of one's sense of need seems to be a fairly stable method of integrating the sense of need with the sense of power; for the ability to help others undoubtedly does satisfy the assertive impulses while at the same time giving a sense of security through identification with the person receiving the help. The dangers of this method, where used exclusively, are that the person is sometimes so oblivious of her own normal needs that she tends to work herself to death in supplying those of others, until she is finally forced to attend to herself through illness or nervous breakdown.

I think the understanding of this mechanism is important for the vocational guidance of adolescent girls because of the heightened conflict between outward and inward turning impulses that occur at puberty. As we have seen, the glandular changes of puberty, apparently, in a girl tend to strengthen the inward turning impulses; sometimes then these become projected and the girl becomes acutely conscious of the suffering and pain in the world, and feels she has a call to become a doctor or a nurse, or a social worker or a teacher.¹ But she has not always

¹ Once again the Freudian explanation of these wishes would be slightly different; it would emphasize the importance of the attempt, by

the other qualities which would make her successful in these occupations; she may be a person of potentially creative capacity who would find too exacting the continual demands that these occupations make on the outward-going attention. She may be a Mary who thinks she ought to be a Martha, she may over-estimate the virtues of an exclusively practical life of action simply because she herself finds deeper satisfaction in a more contemplative attitude.

The consideration of occupations in terms of the amount of outward turned attention and the amount of direct emotional assertion that they require, can be illustrated in terms of different kinds of teaching. A person of markedly introverted emotional bias and high intellectual gifts may make a good university lecturer, where dominance of her students may be achieved through intellectual prestige, but she would probably not be so successful in teaching a class of thirteen or fourteen-year-olds; although if the school were organized upon some scheme of individual work (such as the Dalton Plan) where dominance of a class is not required, she might again be successful. But in general the emotional introverted person is usually at her best when dealing with one person only.

3. INTEREST IN CHILDREN AND ANIMALS

The stabilizing effect of the maternal type of activities were well illustrated in one or two instances when, after the interview results were reported to the staff, the Head Mistress was able to arrange for a girl to have some contacts with the Junior School.

Evangeline (B.G.) aged fourteen, I.B. between 100 and 110, who was reported for being 'almost illiterate and idle with defiance', said that she had never liked school, but good works, to make up for one's own infantile destructive impulses. Also, in connexion with the desire to be a doctor or a nurse, it would emphasize the part played by desire to allay childish anxiety over dangers that were imagined to lurk within the body.

that Drawing was her favourite subject 'as it's about the only thing I can do'. Of all the things she did in school, she liked 'pottery' best, and she said her hobbies were cooking, drawing, needlework and pottery. In the light of the interview results it seemed that idleness and defiance were the only ways she knew of to protect herself against the persistent demands for academic work that were far above her capacity. Subsequently she was allowed to spend regular periods with the kindergarten children, and it was reported that her behaviour was much improved.

One question raised on several occasions was the reason for the extreme and sometimes exclusive interest in animals shown by many of the girls. Probably there are a great number of factors involved here, such as reaction from city life, fashion, phantasy escape from the effort and regulations of school life, and so on. But also, with the prevalence of small families, the majority of these adolescents had no baby brothers or sisters to care for; often when asked whether they liked babies, they said, 'I don't know any.' Also the need for the sense of security afforded by simple bodily contacts was perhaps shown by Angela (B.P.) aged thirteen, who had just reached puberty, and whose mother complained that she would spend her evenings sitting in the kitchen with the cat on her knee.¹ Further, the lack of simple physical contacts often experienced by 'only' children living in flats in a city, was possibly indicated by the fact that one 'gang' reported for continual physical 'ragging' and always going about with their arms round each other's necks, was found to be composed mainly of 'only' children. Also it is quite possible that the top-heavy emphasis on intellectualization of experience in school work is likely to produce some attempts at compensation, even in those who have plenty of companionship at home.

¹ Here the Freudian school would also add further explanations in terms of the deeper unconscious needs of the psyche. It would show how a child, by making friends with animals, finds reassurance against the fear of her own 'animal' impulses.

Whatever may be the causes behind this great interest in animals, it certainly involves difficulties for the vocational adviser, who is sometimes faced with girl after girl who has no other ambition but to be a kennel maid or keep a riding-school.

4. VARIATIONS IN SPEED OF RESPONSE

Another useful way of considering the different qualities required in occupations is in terms of the amount of time allowed for the response. On each level of functioning there are occupations which require immediate response and others which allow time for reflection. For instance, the car-driver must make instantaneous decisions, while the dressmaker can take more time in deciding what she must do next; on the level of intuitive perceptions the journalist must produce her 'copy' in time for the evening edition, while the short-story writer can take longer to digest her experiences. In general those whose work consists in the direct control of people, such as teachers, saleswomen, staff managers and so on must be able to give an immediate verbal response; while those who are not in such direct contact, as for instance office-workers, can make their decisions in a more leisurely manner. But it is useless to say that all the jobs which require an immediate response require the trait of 'quickness' in a person, for some one who is quick in physical response may be slow in verbal repartee, and the person who is quick to see the point of an argument may be slow to express her feelings. There seems to be no doubt, however, that the person whose interests on the emotional and intuitive level, are mainly turned outwards, normally makes a very much quicker response to any external demand than the person whose interests are more inward-turning.

Quick wits, repartee, verbal wit, social savoir-faire, all require an outward turning attitude, and the ability to give full attention to what is going on around one. Individual differences in this can perhaps be conveniently

looked upon in terms of the kind of associations that any outside stimulus provokes. When the extraverted attitude is dominant, the associations determining the response seem to be largely external verbal connexions giving a ready wit and expressiveness, or they are in terms of practical information, thus giving a certainty about facts, as in the kind of person who can produce all she knows at a moment's notice. In others the stimulus generally sinks far deeper into the organism and produces an elaboration of associations, often in terms of obscure sensations and feelings that are entirely incommunicable at first, but may emerge later in some quite different form. The latter type can, in extreme cases, be an enigma both to himself and other people. If he or she has discovered some form of artistic expression, all may be well; but if not, as Jung has pointed out, all impressions sink into the inner depths and hold consciousness under a spell; the result is an attitude to the outer world of extreme aloofness, with thought and feeling only expressed in the necessary banal everyday remarks that bear no relation whatever to the real feelings. Nan (page 142) had problems in relation to her career which were associated with this over-balanced introverted interest; she was, as has been already noted, extremely forgetful and absent-minded, but because she found 'English' easy she was thinking of taking up journalism. Actually if she took up journalism she would be likely to find it quite impossible to make adequate topical responses. What she wrote might be very original and interesting but it would probably emerge only at erratic times after long periods of absent-mindedness. The need to earn a living is naturally rather a difficulty for this type of girl, since her gifts are often not sufficiently under her own control to be commercially useful. On the whole it is probably better for her to find some fairly unexacting work that can be carried on with the surface of her mind, and to develop her creative gifts in her leisure time rather than try to make them the basis of her livelihood. Also, for her the

actual social surroundings of her work would be particularly important. Since the introverted bias includes an expectation and fear of hostility from others, such a girl can only be tempted into expressiveness by reassurances and an atmosphere of helpfulness. Actually under such conditions people of this type sometimes come to show the opposite aspect of the personality; thus it was reported that Nan could be exceedingly witty and fluent in the safety of her home circle.

This question of individual differences in speed of response or gestation period, as an aspect of temperament rather than of innate ability, clearly bears upon the problem of home-work as well as of vocational work. It appeared that the sensitive and serious-minded child who is usually in a receptive relation towards her teacher, and very conscientious in her work, feels impelled to finish whatever home-work is set, however long it takes. It is often impossible for her to keep to the time limits for it is emotionally impossible for her to assert herself sufficiently against the teacher to say, 'This is all I could do in the time,' and risk the criticism that she should have worked faster and concentrated better. One girl of this type, of high intelligence, said she hated to see the disappointed look on the mistress's face if she had not finished the work, and yet there was always more set than she could finish in the time allowed. The plan of getting the parents to undertake, by signing the preparation time-table, that their children shall keep to the time limits, is admitted by most to be quite ineffective, and on general grounds it could hardly be expected to be otherwise. The whole procedure of a variety of subjects being set for home-work each night with definite time limits for each subject, seems to lead to a confused attitude on the girls' part and tends to make marks for home-work mean very little.

CHAPTER X

VARYING EFFECTS OF THE ENVIRONMENT

I. THE NEED FOR 'NORMS' OF BEHAVIOUR

THE preceding chapters are an attempt to provide a descriptive terminology in which some of the infinite varieties of differences between children can be observed and discussed. So far, emphasis has been chiefly upon classifying the various types of response to the environment that can be distinguished, and the question of which kind of response will be adopted in any particular circumstance has only been considered indirectly. One very important aspect which has so far only been hinted at is the influence of standards of behaviour.¹ It is obvious that no study of the individual is complete without considering how his behaviour compares with others of his age and social background.

¹ In one school the staff asked for advice about a form whose standard of work was much lower than it should have been. When the intelligence test scores were examined it was found that the four top girls in the list were all holding scholarships from Elementary Schools, while the girls at the bottom of the list happened to come from families holding a dominant social position in the neighbourhood. These were also regarded by the staff as the dominant personalities in the form. Such observations suggested that those who could not in any case do well in intellectual work had set the general standard for the form; so it seemed possible that the scholars had unconsciously worked to the standard of those who were superior in social position but inferior in intelligence. This hypothesis was strengthened by the fact that when asked to give accounts of their most vivid day-dreams, all the four scholars gave day-dreams which were quite different from the usual type and described phantasies of social conflict. For instance, one girl wrote:

'I imagined I was living in Britain when the Romans had just conquered our land. I saw myself and all the rest of the family worshipping an oak tree on which grew mistletoe. Druids with long white beards were standing round the tree, when suddenly a band of Roman soldiers came and broke up the peaceful gathering and somehow I felt real hate towards the Romans of those days.'

All the accounts of day-dreams sent in by the other girls in the form were of a much simpler type, usually wish-fulfilment pictures of themselves as successful or famous or living in luxurious circumstances.

Just as intelligence test scores are useless without this comparison, so it is impossible to tell whether any particular kind of social behaviour is significant without a similar comparison. In practice, such comparisons are continually made implicitly, as when a child is labelled as 'difficult' by any member of the staff. In time the psychologist should be able to add to this implicit comparison an explicit one, saying how frequent any particular kind of behaviour is in children of the same age, for that particular social group and also for the whole population; and also whether it is characteristically found at that particular age, but not in older children, so that the difficulty can be looked upon as a phase that will probably pass away in the ordinary course of growth. Unfortunately, our knowledge is not yet sufficiently extensive to enable such explicit comparison except in limited fields.¹ However, even though a particular kind of behaviour may represent a phase of growth rather than an enduring tendency, there are wiser and less wise ways of dealing with it while it is occurring, and the wiser ways must grow out of an understanding of what the behaviour actually means to the child herself.

2. SOME INFLUENCES AFFECTING GROWTH

I have tried to indicate something of what is known about the factors causing growth from one phase of interest to another. It may be as well to attempt a summary of this, in terms of the conditions of the environment and the availability of various ways of resolving the conflicts of impulse. The solution of conflict through the development of capacity for intellectual concentration and mental work will be particularly considered, not because the bookish person is to be taken as the highest peak of human development, but because in the particular environment of this type of school the development of intellectual capacities

¹ For a summary of what is known about detailed characteristics at various ages, see *From Birth to Maturity*, by Charlotte Bühler.

and interests is a critical issue. For, as already indicated, the fully developed personality is here assumed to be the one in whom there is not an exclusive interest in abstract thought, but a capacity to use all modes of response, including abstract thought and the wisdom and experience accumulated in books, when necessary. It is to be expected that the development of the capacity for intellectual work would depend to some extent on the cultural background of the home; but that it does not depend entirely on this is shown by the fact that sometimes intellectual geniuses have sprung from very simple backgrounds and children from cultured homes sometimes remain interested only in the present moment of experience, never learning to use their experience and that of others reflectively. Some of the environmental factors¹ that appeared to have influenced the degree of development reached in the girls studied here, may be summarized as follows, though this is not intended as an exhaustive list:

- (a) The nature of the parents' interests.
- (b) Amount of change of environment.
- (c) Opportunities available for multi-level solution of conflict.
- (d) Companionship of equals.
- (e) Amount of emotional stress in relationships with adults.

Examples:

(a) *The Nature of the Parents' Interests*

It was not always easy to judge the parents' interests, when so little material about the home was available. Sometimes the child's interests seemed partly determined by the fact that she shared them with one or other parent,

¹ Charlotte Bühler, in *From Birth to Maturity*, pp. 82-84, describes how it is between the second and sixth years that transition from the dominance of a play attitude to the dominance of a work attitude normally occurs. This observed fact makes it clear how unsatisfactory home conditions in these early years can greatly impede a child's later school progress.

sometimes she seemed to have chosen the exact opposite; this negative influence is probably part of the adolescent struggle for psychic independence but is also closely dependent on factors mentioned under (e), since it is probably emotional stress that determines the identification with or repudiation of the parents' interests. One particular example may be given of how parents' interests may impede development: a girl of fifteen, whose father was markedly materialistic and scientific in outlook, proceeded to echo her father's views, but showed by her answers in the Postcard Sorting that she had imaginative and religious interests, which, however, she could not bring herself to accept in opposition to her father.

(b) *Amount of Change of Environment*

Lack of a stable routine, particularly in the early years, seems to make it difficult for a child to develop appropriate habits of response, and therefore tends to produce a sense of insecurity with its attendant distracting preoccupations. One girl, of high test intelligence, but reported for lack of concentration and co-ordination, had, until the age of ten, changed her school every year, because her father's work continually took him to new places.

(c) *Opportunities Available for Multi-level Solution of Conflict*

This factor was not easy to study, since the homes were not visited, but it was clear that many of the girls, particularly those who were 'only' children and lived in small flats, spent most of their leisure time motoring with their parents or going out with them to social functions. This over-emphasis on adult forms of amusement and also the lack of adequate play-space and play-time for imaginative or constructive hobbies was naturally more apparent in the London than in the provincial schools. Olga (p. 162), who showed an inhibited creative bent, was recommended to try modelling in plasticine, but she said there was 'nowhere

to do it, where the grown-ups would not laugh at her'. Another girl said she had tried, but her father had taken what she did to show his business friends, so she had never done any again. A third showed a very strong desire to become a Girl Guide, but because her elder sisters had never belonged the family saw no reason why she should. Yet another wanted passionately to learn carpentry, but the parents did not think it was 'worth bothering about for a girl'. Sometimes it seemed also that the environment had provided too easy solutions, or too early success in one particular solution, leading to too little emotional tension to promote further growth. Too easy solutions seem liable to occur in children from very rich homes. One girl who scored an I.B. of between 170 and 180 (which was marked as 'too high' by three members of the staff), apparently felt no need of a fairy godmother, for she wrote, in answer to the question about three wishes: 'I only want what I will do anyway.' She seemed to be well-balanced on the physical level of interest, and to have achieved an easy technique of social sophistication, with no apparent conflicts; thus there seemed to be neither interest nor external stress to drive her to make use of her intellectual gifts. Another girl, aged thirteen, who also came from a rich home, but who showed below-average test-intelligence, seemed to have had every wish gratified to such an extent that she still half believed in magic. She said her hobbies were 'to ride or hunt, or go up to London to buy clothes', and her day-dreams were of 'a shop such that whatever patterned dress I wanted, it would be there'. Actually it was suggested that this girl might develop a greater sense of adult reality if given some responsibility; accordingly she was made a form leader and subsequent reports showed a great improvement in behaviour.

Premature solution of conflict in terms of exclusive heterosexual interests also seemed to occur and has already been mentioned (page 171); it usually seemed to occur, however, in these schools, not as a result of direct stimulation from

the environment, but in combination with excessive emotional tension of some kind, for it is definitely against the social code of the particular class from which these High School pupils are largely drawn, to become absorbed in hetero-sexual love affairs during the early years of puberty. In other social strata, for instance, amongst those who are expected to begin earning their living at fourteen, the situation is probably different, and this particular interest could not then be classed as a premature solution.

(d) *Companionship of Equals*

The work of Piaget has particularly shown how it is that free conversation between children amongst themselves, and the social adjustments that their mutual play forces upon them, are a very powerful influence for psychic growth. Many of those interviewed were 'only' children, and had therefore been often deprived of adequate companionship under conditions of free play.

(e) *Amount of Emotional Stress in Relationships with Adults*

It seems that too much emotional tension in the child's relations with adults around her is liable to produce a too narrow or low level solution, from very urgency; on the other hand, a mild and stable environment seems to make it possible for conflict to be held in suspension, as it were, while more and more finely adjusted solutions are being developed.

The part played by too great emotional stress at home in causing inhibited development was strikingly illustrated in a great many of the girls interviewed. It was convenient to classify the material according to the situation chiefly producing the stress, such as quarrelling between the parents, favouritism shown by one or other parent towards another child, and so on, but perhaps the most frequent source of emotional urgency was 'pressure of personality', the conscious or unconscious desire of the parents to impose their wills on the child, and to mould her according to

their own idea of what a person should be, instead of allowing her to develop her own identity.

3. PRESSURE OF PERSONALITY PRODUCING A DEFENSIVE OBSTINACY

A marked example of this kind was provided by the reminiscences of an 'old girl', Carol (P.B.), from one of the Trust Schools. Her mother was a brilliant and witty woman who had never found any outlet for her powers, but who had directed her thwarted ambitions into hopes that Carol would be an outstanding social success. With all her quick-witted competence it had seemed almost impossible for her to let Carol learn to do things in her own way, or to stop trying to tease and goad her into success. The following account gives Carol's own memories of the result, the last paragraph referring to what happened when she was sent to boarding-school at fourteen:

I used to delight in annoying people, and if I could manage to get them really ratty, it gave me a feeling of triumph. If any one was counting knitting (I remember the maid was always counting stitches) I would say different numbers and try to put her off. And if she told me to do anything I didn't want, I would say: 'Do-wester, Nor-wester, Sou'-wester, E'-wester, West-wester', and it always made her cross—not cross enough to do me any particular damage—or perhaps she didn't dare do much (more than her place was worth)—but enough to give me huge delight. I soon learnt what particular trick annoyed individual people, and who it was wise to try them on and who not. I was probably trying to get my own back in some way or other. Visitors had the hell of a time. I could never keep my hands off their hair and noses. This hardly belongs because I didn't do it on purpose to annoy—I just couldn't help it. I was always resolving not to do it, but my hands would stray back somehow. (I did it to visitors because they were the only people who would suffer in silence.)

When I teased the mistress at school, I was in a room

with about six other girls, who would giggle sympathetically under the bed-clothes. Their giggling egged me on. I felt (1) nobody else would dare speak to Miss S. like that. What a bold one I was. (2) I had to do it every night and keep it up until she had slammed the door on me in disgust, because to stop would be giving in—a sign of weakness. (3) It made me the centre of attraction. (4) It gave me a feeling of power.

In relation to her mother, the only defence she could find was a sullen obstinacy; and it seemed that finally this pattern of response became the only one she could use, other than active naughtiness, in the face of any demand for skilled achievement. Although her test-intelligence was as high as those who take Honours Degrees at the University, her school-work was so poor that she was not even allowed to sit for Matriculation at the boarding-school.

This inability to enter into a receptive relation to adults and hence inability to learn, seems to be sometimes a defence against excessive adult demands for achievement, sometimes a defence against the feeling of deprivation of affection. It is as if the child said to herself: 'Very well, if I can't have what I need, then I'll take nothing. I'll make myself independent of them.' So Esther (A.P.), aged fourteen, I.B. between 140 and 150, was reported by the staff as:

Very reserved.

Obstinate.

Secretive.

Wilful; utterly unresponsive.

Her mother said that she found Esther one of the most difficult people to understand, partly because her other children, who were boys, were so easy to manage and so lovable. She also said that Esther's chief idea of humour was to pretend to be a baby, and she found this more irritating than funny. One particular instance showed the situation clearly; the mother, with the idea of pleasing

Esther, had sat up till midnight several times, making her a special party frock—and when it was finished, Esther had refused to show any gratitude.

Similarly, at school, Esther had been offered some special help with one of her lessons, but had refused it.

4. PRESSURE OF PERSONALITY PRODUCING FEAR

These narrow, single level solutions, in terms of obstinacy, sullenness, defiance, are often very difficult to modify, without psycho-therapeutic help, and in any case require the provision of alternative solutions, for the appeal to the child's will is useless. On the other hand, the child who has responded to difficulty by over-receptiveness and fear is naturally easier to help; sometimes merely to lessen the pressure of personality upon her causes a marked improvement. Isobel (C.B.), I.B. well below average, showed marked irrational fears in her postcard answers. The staff had reported her as 'afraid of doing anything' and amongst the 'likes' pile in the Postcard Sorting she had put:

Keepers attending very patient and still, the keepers must
to Elephants . be very gentle in what they do.

Amongst the 'dislike' pile, she put the following cards:

Telescope . . The machine looks so big, as though
 it's going to fall on the two men,
 and it's very dark in the room.

Ski-ing . . very, very cold. You might fall and
 the skis stick in you—also you might
 get lost.

The Vigil . . An unusual picture. I don't like the
 way he's holding the sword, it
 might slip and go into him—also
 it's dark.

When questioned about her fears, she said that she was afraid of stern people and that her father was a stern person.

Subsequently the father came for an interview, and it was pointed out that Isobel was a child who needed much encouragement and praise to help her establish confidence; he answered that he believed in the opposite of this; he said, 'With my business staff, I go on the plan that if I am satisfied with their work, then I say nothing. I am afraid if I praise them at all they will think they are so good there is no need to try.'

This illustrates a difficulty that was frequently found with children who were over-receptive emotionally; it seems probable that there is no limit to the amount of encouragement that this type can absorb and use constructively, but very often they are in contact with adults of the opposite type who are themselves best stimulated to effort by criticism and competition, and so believe in it for their children.

Girls of markedly introverted emotion also show a characteristic response to some of the situations of class teaching. Their great fear is that they shall be 'jumped upon' by the mistress, and though they usually manage to avoid this for themselves, by docility and quietness, they often seem to worry about it on behalf of their friends; thus one girl of this type (aged sixteen), in answer to the question about possible changes in school, wrote:

I wish a few mistresses would not imagine that every one is made on the same last. It leads to a lot of misunderstandings.

When asked what she meant by this, she said: 'There's one girl in Geometry, she's not stupid, quite intelligent really, but every lesson she gets in an awful row.'

Not only is this type super-sensitive to 'rows', whether from parents or at school, but they also tend to be afraid of what is usually known as 'the strong personality'; this means that the type of mistress who may be a brilliant class teacher, where the power of her personality is diffused

throughout the group, may sometimes have a paralysing effect on children seen individually. For instance, one such mistress asked why it was that some of her most able pupils became utterly tongue-tied when they reached the stage of individual lessons in the Sixth Form.

The child's attitude and level of functioning seems to be affected not only by contact with powerful or dominating personalities, but also by too close contact with adult emotion in general. For instance, Arabella (D.B.), aged fourteen, I.B. between 150 and 160, was reported by the staff as 'over-ambitious, terribly earnest'. The interview material showed her to be a well-balanced child with very normal interests, but she lived entirely alone with her mother, the father and mother being separated. Also Julia (D.T.), aged fourteen, I.B. between 160 and 170, was reported as 'no faith in herself, panic at hint of difficulty, but eager and hard working'. Here again there was no father, and the mother had made a confidante of Julia from very early years. In general it seems that a child cannot stand the full blast of contact with adult feeling and emotion, especially where she comes to be used by one parent as a substitute for the loss of the other.

CHAPTER XI

STATISTICAL COMPARISONS

I. THE USES OF THE CHART AND THE POSTCARD SORTING

THE Postcard Sorting, used here as an aid to the interview, was expressly not intended as a test, but only as a means of obtaining within the space of a short interview information about a child's interests and attitudes at the moment. If it were used as a 'test for temperament' it would be necessary to measure its 'reliability' as a test, that is, to repeat the test on the same children and find out whether the same answers were given; actually this was done, as a matter of interest, with a small group of children after an interval of nine months, and also with a small group of adults after an interval of six years. The groups were too small, however, for the results to have any scientific validity. It would also be out of place to discuss these results here, because the staffs of the schools do not need any such adventitious aid to observation; since they are in daily and yearly contact with the children, they can observe their attitudes and interests directly, and not in any concentrated diagnostic form, such as the visiting specialist requires. Thus the only use of the Postcards, so far as this book is concerned, was to give the experimenter a picture of the kind of raw material of interests that the staffs were faced with in their day to day work. Any interpretations that have been made here, as regards bias of temperament, on the basis of the Postcards answers, are therefore illustrative rather than conclusive, since it cannot be assumed, without further research, that the answers to the cards do express permanent or stable attitudes. Further, in working with adolescents, who are characteristically in a phase of experiment and readjustment, one would expect the attitudes expressed to be continually changing. This is an added

reason for the necessity to look on the case material quoted here as illustrative only of a method of observation, a method which may in the future produce conclusive knowledge about individual differences in adolescence, but which cannot in itself be taken as such. The chart, similarly, is only a diagrammatic and greatly over-simplified statement, useful as a means for summarizing an immense complexity of observations, but arbitrary, and devised simply for the sake of clearness. The same may be said of the use of the word 'type'. It is usually agreed that there cannot be fixed or clear-cut 'types', but it is difficult to think or talk about these problems without using the word, just as one uses a diagram as a convenient over-simplified abstraction.

2. COMPARISON BETWEEN THE INTERESTS OF A 'SATISFACTORY' GROUP, AND A 'DIFFICULT' GROUP

Although the chart was only intended as a convenience, some slight statistical confirmation of its underlying idea was actually obtained when a comparison was made between the Postcard answers for a 'satisfactory'¹ group and a 'D' group.

It will be remembered that many of the answers from girls in the 'D' group showed a marked interest in exciting physical experience, with a tendency to look upon anything quiet or contemplative as 'dull' or 'miserable'. Others, however, seemed to like all the quiet situations but none of the exciting ones. When the answers from the 'satisfactory' group were studied, however, there was a marked difference, as most of them seemed able to enjoy both excitement and quiet; the answers of Alice (S.A.), aged fourteen, I.B. between 170 and 180, are a clear instance of this; she liked 'Women Praying' because it was 'nice and quiet', and 'Blind Man's Buff' because it was 'nice and noisy'. So also Nell (R.S.), aged thirteen, I.B. between

¹ The 'satisfactory' group consisted of the 13 girls who scored the greatest number of 'a's' on the rating-scale filled up by the staff (page 11), omitting the item of 'marked special friendships'.

190 and 200, liked 'Blind Man's Buff', 'because they are all playing, jolly', while she liked both the 'Almshouse Garden' and 'Hoorn Church', 'because they are nice and peaceful'. For purposes of comparison, the answers from a girl in the 'D' group are given, Natasha (T.A.), chosen because she is of the same age as Alice, in the same form, and has approximately the same I.B.:

Natasha (T.A.), aged fourteen, I.B. between 170 and 180.

<i>Likes</i>	<i>Reason</i>
Her First Dance .	I like dancing, though not the old-fashioned clothes.
Mother and Child	I like to see children play.
Child riding on Cow	fun to sit on a cow.
Joan Crawford .	nice life.
Woman reading .	a cosy chair reading.
Bride and Pages .	to get married.
The Gleaners .	I like harvest fields.
Girl playing the Organ . . .	I think she's enjoying herself, there's something nice about it.
Almshouse Garden	like to be the man with the scythe.
Moonlight on the Yare . . .	lovely moonlight.
Guests Drinking in Dutch House .	enjoying themselves.
Trial Gallop .	thrilling to hunt.
Blind Man's Buff .	having a nice time.

<i>Dislikes</i>	<i>Reason</i>
Washing Day .	hate to be washing.
Dutch Woman making Bread .	looks so drab.
Women praying .	drab, pictures of prayer.
Suggia . . .	I don't like playing.
Dying Child with Mother . . .	ill.
Death of King Arthur . . .	don't like seeing people dying.

<i>Dislikes</i>	<i>Reason</i>
Release of wounded	
Prisoner . . .	that's sad too.
Horse Fair . . .	chaos.
Fishermen . . .	I'm frightened when it's rough.
The Vigil . . .	a lovely picture but something sad in it.
Firemen . . .	a scene of destruction.
Ski-ing . . .	Iceland, too cold.
Wreck of Explorers	dangerous.

It will be noticed that in these answers, though there is certainly some evidence of ability to enjoy both quietness and excitement, enjoyment of quiet has not yet become a stable sentiment expressed in the words, 'I like that because it is quiet'; although she enjoys some of the quiet scenes, such as 'Moonrise on the Yare', and 'Almshouse Garden', she only mentions the moonlight in the former, not the quietness, and in the latter she chooses to be the one active busy person in the picture—'the man with the scythe'. Also she agrees with others in the 'D' group who showed such a marked dislike of quietness, in thinking that the picture of Women Praying is 'drab' and in disliking sadness. Actually this child was placed in the 'D' group, not for any persistent difficulty of behaviour, but for a single episode of truancy.

Observations such as these on a growing number of cases suggested a possible method of comparing the answers of the two groups in numerical terms. Four types of reasons for liking or disliking a picture were distinguished; these can roughly be defined as:

- liking quiet.
- liking excitement.
- disliking quiet.
- disliking excitement.

Exactly which reasons were to be classed under each of

these headings was to some extent a matter of guesswork, but the following grouping was used for the first inquiry:

LIKING

Quiet

peaceful
quiet
beautiful
harmonious
alone
gentle
restful
to lie and do nothing
old
contentment
lots of time

Excitement

thrilling
exciting
fun
nice time
rowdy
life in it
sport
games
nice and noisy

DISLIKING

Quiet

boring } (when referring to
dull } quiet picture)
dry
drab
dark
lonely
miserable
doing nothing
not much to do
being old
old-fashioned
solemn
serious

Excitement

too noisy
too rough
too many people
don't like games
don't like crowds
rushing about

Some reasons, which at first sight would seem to belong in one or other of these groups, were omitted because of a certain ambiguity, for instance, the word 'lovely' which might seem close enough in meaning to 'beautiful' to be put in the 'liking quietness' group, was sometimes used to describe exciting situations as well. The word 'old-fashioned' on the other hand, which might at first sight appear to have no connexion with this classification, was often used as a reason for disliking a picture, and seemed

to be so used almost entirely by those children who looked upon anything quiet as 'boring', whether the quiet situation was old-fashioned or up-to-date. It therefore seemed to the experimenter that it was worth including this word in the first attempt to find significant differences between the two groups.

The answers in the two groups were then studied and the frequency of the use of these four groups of reasons were noted. The table shown on pages 204 and 205 gives the results of this comparison. The names are arranged in order of age, those below twelve being omitted.¹ Each * indicates a single adjective or phrase.

The first thing noticed from this table was that in the 'D' group 'disliking quiet' was mentioned fifty-six times, amongst sixteen girls, while in the 'satisfactory' group, it was only mentioned four times, amongst thirteen girls.

On the other hand, 'liking quiet' was mentioned thirty times by the 'satisfactory' group, and only twenty times by the 'D' group, although this was the larger group. And, if we take the number of girls mentioning 'liking quiet' rather than the number of times it or its equivalent is mentioned, the same kind of difference is found; that is, ten out of thirteen 'satisfactories' can enjoy quiet and only six out of sixteen of group 'D'.

If love of quiet can be associated with an introverted attitude, then it might perhaps be expected that those girls who are most 'satisfactory' in the eyes of the staff are only those who know how to be emotionally submissive to the demands of school life.

In terms of the chart, however, satisfactory development was taken as involving capacity to function both in an introverted and an extraverted way, according to circumstances. If, then, we count how many of the 'satisfactories' like both quiet and excitement, we find that ten out of the

¹ It was found that the answers for children below 12, or thereabouts, were different in type, and were usually not sufficiently expressed in general statements to admit of classification by this method.

TABLE

POSTCARD ANSWERS OF A SATISFACTORY GROUP

Satisfactory Group

Case	Age	I.B.	<i>Liking</i>	
			<i>Quiet</i>	<i>Excitement</i>
1	...	12 200	****	**
2	...	13 170	.....	*
3	...	13 190	*****	*****
4	...	13 170	***	**
5	...	14 170	**	**
6	...	14 170	**	**
7	...	14 180	*****	*
8	...	14 150	.....	.....
9	...	14 150	*	*
10	...	14 140	*	***
11	...	15 160	.....	*
12	...	16 170	***	***
13	...	16 140	**	*

Group 'D'

1	...	12 140	.....	**
2	...	13 180	****	*
3	...	14 120	.....	**
4	...	14 100	*****	**
5	...	14 160	.....	*
6	...	14 170	.....	*****
7	...	14 150	.....	.....
8	...	14 180	**	**
9	...	14 110	.....	**
10	...	15 90	.....	**
11	...	15 192	*	.....
12	...	15 100	.....	**
13	...	15 140	.....	*
14	...	15 90	***	*
16	...	16 110	**	**

IX

AS COMPARED WITH A 'DIFFICULT' GROUP

<i>Disliking</i>	<i>Notes</i>	<i>Form</i>
<i>Quiet Excitement</i>		
.....	Form Captain	Up. III
*.....*	.....	Up. IV
*.....	.....	Up. IV
.....	Vice Form Capt.	Up. IV
.....	Vice Form Capt.	Up. IV
.....	.....	L.V
.....	****	Up. V
.....	.....	L.V
.....	.....	L.V
*.....	Games Capt. (Form and House)	Up. V
.....	Vice Form Capt.	Up. V
*.....	Prefect, Vice House Capt.	L. VI
.....	Prefect, Vice House Capt.	Up. VI
**	nerves, stage fright	Up. III
*	avid of attention	L. IV
*****	queer	L. IV
.....*	sensitive in art work	L. IV
*****
*****	gifted musically	Up. IV
*****	played truant	Up. IV
****	**	L.V
***	erratic memory	Up. V
*****	*	L.V
***
**	lazy	L. IV
.....	***	L. V
*****	Games Capt. indolent work	L. V.
*****	antagonistic	L. V
.....	sensitive in art	L. V
**	**	L. V

thirteen do, as compared with only five out of the sixteen in group 'D'. This seems to suggest that 'satisfactoriness', as judged through the rating scale filled up by the staff, indicates an emotional 'both-sidedness'. It also gives provisional support to the general thesis underlying the chart that a well-developed personality may be one that is able to function, according to the needs of the situation, in either an inward or an outward turning way.

3. SUMMARY OF FINDINGS IN THE INTERVIEW

Just as the findings from the Postcard Sorting must be illustrative rather than conclusive, so any numerical statement of the diagnoses of difficulties must be tentative; the only means of checking the correctness of the diagnoses would be through studying the subsequent history of the girls interviewed. However, in the following table, the findings are classified in order to give some idea of the frequency of the different kinds of difficulties observed. The original fourfold grouping of factors (page 88) has been used as a basis, and the following headings have been used to signify these factors or various combinations of them:

Home Problem

Test-intelligence adequate to the demands of school work, but home problems definitely admitted and discussed by the child or the parent.

Home Doubtful

Test-intelligence adequate and problems at home not admitted by parent or child, but inferred by the experimenter from the data obtained.

Curriculum Problem

No apparent problems at home, but, owing to low test intelligence, the child has difficulty in finding a sense of achievement in work of a largely academic nature.

Temperament Problem

Strong bias towards extraverted or introverted interests, or marked strength of both these tendencies causing apparent conflict. In these cases there was no obvious difficulty in the home, but it is quite probable that further study would have revealed something, and so placed these in the mixed group of home and temperament problems.

Home and Curriculum Problems

Difficulties at home combined with curriculum difficulties at school. The children grouped under this heading may include some of a slightly higher intelligence than those simply classed as 'curriculum' problems, because the home difficulties often make it harder for them to make full use of the intelligence they have.

Home and Temperament Problem

Home difficulties acting upon a marked bias of temperament. It may be that these are all simply home problems, and that it was difficulties in the home that caused the original bias. However, since it was not possible in most cases to discover what had been the significant conditions of the child's infancy, any characteristics that had been marked since babyhood were considered, for convenience, as 'temperament problems', in distinction from those problems of behaviour which were clearly seen responses to particular home circumstances.

Temperament and Curriculum Problems

Curriculum problems combined with either especially active, or especially retiring or anxious bias of temperament.

No Difficulty found

Sometimes there seemed to be nothing to account for the difficult behaviour reported by the staff; the children in this group seemed to be thoroughly happy and normal.

Not yet Diagnosed

Amongst the children in this group no indication of the nature of the difficulty could be found in the time available, although it was apparent from the child's manner and bearing that she was not making a very satisfactory adjustment, and that there was some difficulty there.

TABLE X
CLASSIFICATION OF GIRLS IN 'DIFFICULT' GROUP
ACCORDING TO APPARENT NATURE OF DIFFICULTY

Home	Home and Temperament	Home and Curriculum	Home (doubtful)	Curriculum	Temperament	Temperament and Curriculum	No difficulty found	N.Y.D.	Total	School
7	2	3	3	3	4	1	—	1	24	A
4	6	6	7	1	—	—	2	—	26	B
1	3	1	—	6	2	—	—	3	16	C
2	—	8	1	1	4	1	1	1	19	D
6	—	4	4	2	—	—	—	—	16	E
4	5	4	2	3	—	—	—	1	19	F
4	4	8	1	6	2	1	2	3	31	G
28 18½	20 13	34 22½	18 12	22 14½	12 8	3 2	5 3½	9 6	151 100	Total %

Total showing Home difficulty—100 or 66%
 „ „ Curriculum „ 59 or 39%
 „ „ Temperament „ 35 or 23%

Any classification of this kind must be somewhat arbitrary for there is necessarily great overlapping of the different factors;¹ but certain general trends can be observed from the table. For instance, in nearly 60 per cent of the cases, excluding the Home Doubtful cases, there are definite admitted emotional difficulties at home; while in about 40 per cent of the children low test intelligence ('curriculum problems') in relation to the demands of the academic curriculum, seems to play a part.

¹ Also, in order to avoid over-complications of the headings, certain important factors connected with past history have been omitted in this classification. Two factors, in particular, were found to play definite though contributory parts, in the development of the difficulties of certain girls. One was frequency of change of residence, neighbourhood, or school; the other, protection from normal school and social demands owing to lengthy illness.

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SECTION III
THE FUNCTION OF THE
PSYCHOLOGIST WITHIN THE SCHOOL

CHAPTER I

WHAT THE PSYCHOLOGIST HAS TO OFFER

I. POSSIBLE CONTRIBUTIONS

At the outset of this experiment it was very difficult to decide which, out of the innumerable activities suggested for a psychologist in schools, should be selected. At first this difficulty seemed to be only an added technical complication of the work, but gradually it became clear that instead of something superimposed it really represented the core of the problem to be studied; superficially it had looked as if the Head Mistresses had asked for a psychologist to come and contribute, by means of experiment, certain clearly defined items of technical information to help them in solving their day to day problems. But it soon appeared that the introduction of a new kind of expert into any social organization is an experiment in itself, and that the exact position of the psychologist within the school was not something that could be taken for granted. Thus the aim of the experiment gradually became, as far as the experimenter was concerned, not so much to be as useful as possible, but to try to define in what ways a psychologist could be useful.

The data and experience accumulated during the experiment can therefore be summarized in terms of the answer to the question: 'What is the function of the psychologist in schools of this type?'

What the psychologist has to offer can be classified under the following headings:

A. *Techniques for the study of individual differences*

These include methods of measurement, such as the intelligence test, tests for school attainments and special abilities; methods of interviewing, either for selecting new

applicants or for investigating difficulties of behaviour; methods of observation and record keeping, particularly with a view to educational and vocational guidance. All these are techniques which can be applied by the mistresses themselves; vacation courses and other short courses of training¹ in the use of these techniques are available for those who wish for them.

B. Facts resulting from research

The psychologist can be a liaison officer between the school and various research activities,² thus keeping the school in touch with the most recent discoveries, and also showing their relevance to problems within the school.

C. Technical concepts which are useful as instruments

In addition to the instruments of measurement, such as the intelligence test or the rating scale, there are also the continually developing instruments of thought, in the form of concepts. In such a young science as psychology the variety and confusion of concepts in current use is so great that some deliberate method of selection is desirable before these are applied in other fields. The deliberate scrutiny of what concepts are becoming diffused from the psychological world to the educational world seems highly desirable.

D. A point of view

In brief, the psychologist's point of view is that all anti-social behaviour has a cause, that everything a person does is a genuine, although often misguided attempt, to solve what she feels to be her problems. The schools' point of view, as shown by actions and comments of different members of staff, is not always identical with this; there is a tendency to look on difficult behaviour as simply due to the 'cussedness of human nature' and so no further attempt is made to understand it.

¹ Organized by the National Institute of Industrial Psychology, Aldwych House, London.

² See, for example, the National Institute of Industrial Psychology's Report, No. 7, entitled 'Improving the Blackboard', by W. Douglas Seymour, 1938.

E. *A mirror*

By saying that the psychologist can offer a mirror to the schools, I mean that he or she, by simply listening to what members of the staff have to say about their work, can assist their reflection upon day to day experience. There is clearly a rich fund of most valuable experience which each member of the staff accumulates and uses in her day to day work; but this is largely private to each person, it is not as available as it might be for general discussion and for improving the system. The reasons for this lack of availability of experience seem to be various, and will be discussed below.

F. *Therapeutic and re-educational techniques*¹

The methods now being used in the Child Guidance Clinics can to a certain extent be applied within the school by the trained psychologist. For there are a number of difficulties of behaviour which, while needing more specialized methods of treatment than can in any circumstances be given by the staff, yet are not sufficiently extreme to make the parents feel the necessity of visits to a clinic. Such treatment has not been undertaken in this experiment owing to the need for an extensive rather than an intensive survey, but its general methods have been indicated. Methods for overcoming difficulties in learning special subjects, especially reading and arithmetic, have also been developed by the clinics, and are available for use in schools, although they were not used in this experiment.

Below are further notes on these six points of the psychologist's contribution to the schools.

2. TECHNIQUES FOR THE STUDY OF INDIVIDUAL DIFFERENCES

It is quite beyond the scope of this book to give detailed instruction in the use of the various technical methods. There are many books, however, which provide this information; the most useful single instrument is the Group

¹ *The Growing Child and its Problems*, edited by E. Miller, published by Kegan Paul, 1937, gives the views of various workers in Child Guidance Clinics.

Intelligence Test and some of the possible uses of this have been indicated here, both in Chapter I, Section II, and in the studies of individual children. Full information about methods of giving tests can be found in Hunt and Smith's *Teacher's Guide to Intelligence and Other Psychological Testing*.¹ The question of record keeping and record cards is dealt with in a book embodying work directed by the Wiltshire Education Committee and the University of London Institute of Education, entitled *The Educational Guidance of the School Child*.² The principles and techniques of vocational guidance are described in Macrae's *Talents and Temperaments*, and his *The Case for Vocational Guidance*, while another very useful book for vocational and educational guidance is Bingham and Moore's *How to Interview*.

3. FACTS RESULTING FROM RESEARCH

(a) *Facts about intelligence*

There is such extensive literature on this subject that I cannot make any attempt to give an account of the discoveries in this field. Below, however, are a few quotations that provide answers to the problems most frequently raised by staffs about intelligence tests.

i. *Definition of intelligence*

Hamley says: 'Knight, in a small but thoughtful monograph on the subject of intelligence³ has suggested that "intelligence is the ability, when we have some aim or question in mind, (a) to discover the relevant qualities and relations of the objects or ideas that are before us, and (b) to evoke other relevant ideas. In other words, it is the capacity for relational, constructive thinking, directed to

¹ Group tests for diagnosing the specialized abilities needed for the School Certificate Course have been devised by F. M. Earle and are described in his *Tests of Ability for Secondary School Courses*, Univ. of London Press, 1936, together with the first experimental results. Test forms can be obtained from the author.

² A full bibliography is also given in this book.

³ Knight, R., *Intelligence and Intelligence Tests*, London, 1933.

the attainment of some end." This is as complete a definition as the psychologist has given us to date.¹

ii. *Growth and variability of intelligence*

He goes on to say: 'In recent years much attention has been given to the problem of the growth of intelligence and the age at which the average person reaches mental maturity. Early in the testing movement it was shown that the intelligence quotient² of an individual remains approximately constant during growth, and that the mental age of the individual reaches a maximum between the ages of 14 and 16 years. Two rather depressing conclusions follow from these findings: one, that it is futile to attempt to increase the intelligence quotient of a child in any normal case, and the other, that the general intelligence of the average adult is on about the same level as that of the average child of 15.'

Gray says: 'Where children have been re-tested several times in the course of their school life it has been observed that their I.Q. does not, *on the average*, fluctuate more than 5 or 6 points on Binet tests nor more than 10 or 12 on Group tests.'³

iii. *Effect of environment*

Hamley says: 'Intelligence is generally admitted to be the effect of environmental or cultural influences acting upon innate capacity.'

Gray says: 'The "constancy" of the I.Q. is only relative, but even so it has often been misunderstood. When we say that the I.Q. is constant we mean simply that if nothing occurs to raise or depress an individual's comparative intelligence it will tend to remain the same. Sometimes it is held to prove that intelligence is not influenced by environment. We know quite well that when some really substantial change takes place in a child's environmental history his I.Q. will either rise or fall by a greater amount

¹ Hamley, H. R., *The Testing of Intelligence*, p. 19, University of London Institute of Education.

² The Intelligence Quotient (I.Q.) is a measure of intellectual ability independent of age, comparable to the Index of Brightness. It is obtained by dividing a child's mental age by his chronological age.

³ Gray, J. L., *The Nation's Intelligence*, p. 53, London, 1936.

than the rise or fall observed in the group as a whole. Administration of thyroid extract to children with defective thyroid gland will produce a very large increase in their intellectual powers, which continues as long as the dose is maintained and falls off again if it is stopped. A long and severe illness will temporarily retard the intellectual as well as the physical growth of a child.¹ Attendance at a nursery school seems to give children an advantage which persists throughout their school career. It is believed that part of the superiority in the performance of English over American children on the same test is due to the fact that the former begin school on the average a year earlier than the latter. In a later chapter we shall see that older children taken from poor homes and reared for a number of years in more prosperous and cultured families show a significant rise in I.Q.

'Nevertheless these unusual changes in environmental condition affect only a few children in any population, so that the constancy of the I.Q. remains statistically true for the group as a whole. In societies where social distinctions are relatively stable no great number of children undergo any change of condition of a magnitude likely to affect their intellectual standing. It is quite possible that the period during which behaviour is most sensitive to environmental differences precedes the age at which I.Q.'s can be reliably assessed.'

Gray summarizes this by saying: 'The I.Q. is constant on the average for the great majority of children between the ages of 5 and 15, when nothing significant occurs to disturb their accustomed mode of living.'

He also summarizes the conclusions from studies of environmental influences on I.Q.: '(a) Changes in schooling are less powerful than changes in the economic and cultural character of the home in producing I.Q. differences. (b) Changes experienced after the age of 5-7 are less significant than those occurring in the formative period of infancy and early childhood. (c) When changes are made, they must be maintained over a period of years to effect a

¹ Severe emotional conflict will also temporarily retard intellectual development. This fact is sometimes used, by workers in the clinical field, as a basis for denying the constancy of the I.Q. altogether; but this seems to be unwarranted generalizing from the exceptional case.

durable alteration in I.Q. (d) With the exceptions of lesions, certain toxic conditions, and some diseases or injuries of the central nervous system, differences in physical conditions like illness, accident, or malnutrition do not result in any measurable differences in test-intelligence.'

iv. *The range of intelligence*

Ample evidence of the wide range of 'test-intelligence' even in the somewhat highly selected group of High School pupils, has been afforded from this experiment. For instance, in an Upper IV Science Division from a school where the children were not graded into A's and B's there were girls whose scores were equivalent to the average score of fourteen-year-olds and others equivalent to the average score of nineteen-year-olds, according to the published American norms.

v. *Relation of test intelligence to outstanding achievement*

Gray says: 'Individual tests, which still follow closely the Binet tradition, measure what growing children can normally be expected to perform in contemporary Western communities. In Group tests the problems set are somewhat more abstract and artificial. They are almost entirely tests of verbal logical ability, i.e. ability to manipulate given sense data in ways useful for the classification of objects in the external world. Such ability plays an indispensable part in intellectual activity. It is manifestly not the only trait which decides whether or not an individual is to be intellectually efficient in the long run. . . . Other qualities besides intellectual capacity, as measured in the test-situation, enter into the discovery of new knowledge and help to enhance man's control over the external world. Intelligence tests do not pretend to measure what Thorndike calls "social intelligence", the ability to get on with other people in a co-operative society. No test-situation corresponds to the construction of a scientific hypothesis or of a work of art. The ability to discover or to make new things, or to illumine the world of the imagination, is not measured by existing tests.'

Macrae also says: 'If it is true that nothing is achieved in

the realm of mental activity without intelligence, it appears equally true that some achievements are not due to intelligence alone. The good engineer, for example, probably owes his success in some measure to a special mental aptitude. Spearman, although he holds that the factors other than intelligence which enter into mental activities are for the most part specific, admits that there is some evidence of the existence of "group" factors, due to the "overlapping" of the specific factors, in operations which are of a closely similar character. It is these group factors that the vocational psychologist has in mind when he speaks of "special abilities", but so far their nature and range have not been very fully investigated, and the testing of special abilities is still largely based on common sense assumptions.¹

Gray adds: 'It is highly significant to the understanding of what intelligence tests measure that they are most reliable in prognosticating success or failure in clerical occupations.'

He then further elaborates this comment: 'The academic tradition represented in nearly all published tests fails to recognize the importance in a definition of intelligent behaviour of abilities not strictly logical in the conventional sense of the word. Until very recently educational psychology has exalted the claims of "reasoning" to the exclusion of other elements in the process of learning and doing. Reasoning was defined as thinking logically. But the meaning of logical thinking is not self-evident. Our educational system was and remains enormously influenced by the humanist tradition of the classical renaissance and by preoccupation with the art of politics. The curriculum of our schools has always been overloaded with the study of dead languages. Proficiency in these requires obedience to certain rules fixed in the remote past and the ability to understand a finished system of linguistic usages. The study of Latin and Greek does not help people to recognize what is to be done in a world that is constantly changing. Spearman has shown that "g"² is present in the ability to succeed in Latin to a greater extent than in any other

¹ Macrae, A., *Talents and Temperaments*, p. 53, London, 1932.

² 'g' is the name given by Spearman to a general trait, inferred from certain statistical relationships that he claims to find in test scores, when a number of different tasks are involved.

school subject. The significance of this fact has not hitherto been appreciated. It illustrates both the essential nature and the limitations of "g". Great intellectual ability is required for success in learning Latin, but it is the ability to understand and operate a fixed and authoritarian system of concepts. "g" does not provide a recipe for intellectual *discovery*.

He also says: 'What we mean by genius has no necessary connexion at all with the concept of maximal test-intelligence. The Binet scale is very successful in the diagnosis of feeble-mindedness. Neither it nor any other test helps us in the least to prognosticate genius. . . . It is true that American psychologists boldly identify maximal test-intelligence with genius.'

And finally, Macrae summarizes the position: 'Intelligence tests are commonly criticized, most commonly by persons who have little understanding of the way in which they are used. They are blamed for failing to measure things which they are not intended to measure; character, for example, and artistic talent. It is as if one were to regard the stethoscope as a useless instrument because, although of great assistance in the examination of the heart and lungs, it tells one nothing about the condition of the liver and kidneys. No one claims that the intelligence test is an infallibly exact instrument. It is impossible to obtain complete standardization of the examination conditions, for these include not only the test problems but also the emotional attitude of the child to the test and to the examiner. But to say this is not to deny scientific validity to the method; it is merely to admit that the method must always remain less exact than the methods of the physical sciences. Most competent judges are agreed that, in general, the test provides at least a distinctly more accurate assessment of a person's capacity than can be obtained in any other way.'

(b) *Facts about temperament*

The problems of measuring individual differences in character and temperament have already been indicated. The following quotation summarizes the position:

The fact that no educational or industrial test ever gives perfect predictions of a child's success in school, or of a worker's fitness for a job, has brought home to us the extremely important role of temperamental tendencies in all departments of everyday life. No wonder, then, that psychologists have tried so intensively to develop methods for testing traits of temperament and character, and that some 2,000 books and articles on the topic have been published in the past decade. Though most of this research is American, German and Russian investigators are also very active, and British psychologists are becoming more and more interested in the field. Yet the practical results so far are rather disappointing; of the hundreds of tests which have been tried out scarcely one can be recommended as achieving the same degree of reliability and validity as many educational tests.¹

There have been many descriptive studies of these differences, however, as distinct from exact measurements of them, and an attempt has already been made here, by means of the chart (Section II) to indicate the bearing of some of these upon school problems. Obviously, if the psychologist were to wait until all his instruments were perfected before offering anything to the educationist, he would have a long time to wait. What is required is an elastic system of classification, in terms of which the educator can continually relate the ever-expanding descriptive discoveries of the psychologist to the problems of the school. Naturally the classification given here is not intended to be rigid, it is something that can be continually modified as new facts are discovered, or made more exact and accurate as the descriptive studies become confirmed by those more precise methods of observation that result in numerical statement.

(c) *Facts about the learning process*

Experimental studies of the most economical methods for learning are contained in every standard text-book on

¹ Hamley, H. R., *The Testing of Intelligence*, p. 114, London.

educational psychology. A convenient summary of the conclusions can be found in a little book, *The Psychology of Study*.¹

One general result of such experiments must be mentioned here, since it bears upon the problem of the non-academic child. It answers the question of how far certain subjects such as Latin or Mathematics 'train the mind' and are therefore valuable for every child to learn, even though they may never use the actual subject matter in after-life. The conclusion, from a review of the evidence accumulated during the last twenty or thirty years, is that the amount of transfer of habits of thinking learnt in one subject to other fields of thought is small. Thus one may learn the methods of logical argument in Geometry and yet remain quite illogical in political or domestic argument. In so far as transfer of habits of thought learnt in one field does occur, it is a result of the pupil's capacity to see the general connexions and similarities between the two fields.

. . . it follows that the intelligent child, who can perceive relations spontaneously, who can generalize his methods and re-apply them on his own initiative, is likely to show a wider transfer than the dull child. With the dull the teacher can hope to do little more than implant specific memories and specific habits that will be definitely useful in and for themselves, and, so far as possible, impress upon the child how these memories and these habits may subsequently be applied.²

(d) *Facts about cause and effect in behaviour*

An attempt has already been made to indicate the psychologist's contribution to this field, in the discussion of the problems of group 'D'. Here its wider aspects can be indicated. From researches in biology, physiology, psychology, sociology, anthropology, there has come a gradual change in our ideas of cause and effect. For instance, Mary Follett writes:

¹ C. A. Mace, published Methuen & Co., Ltd., 1932.

² C. Burt, *British Association Report*, 1932.

Biology has made large contributions on this point, for biologists have for some time shown us the interactive influence of organism and environment as a 'whole' activity. . . . Biologists have seen that biological experience cannot be defined in terms of organism and environment 'acting on' each other; they have recognized that organism and environment together form a working-unit or functional whole.¹

She also points out that biologists have shown us in regard to each living creature and its environment what physiologists have shown us in regard to the living creature itself. Thus the physiologist has demonstrated that the kind of response made to any sensory stimulus, such as a touch or a prick, or a burn, or a sound, is not determined by that stimulus alone, but by all the other stimuli affecting other parts of the body at the same moment, as well as by the whole of the internal activities of the rest of the body, breathing, digestion, and so on. Through the work of Pavlov, Bechterew, Lashley, and others, such terms as cause and effect, stimulus and response, have been given new meanings.

So also, in the field of what has been called 'clinical sociology', Whitehead writes:

There is no better way of failing to understand social phenomena than to assume that each action or thought happens because of some one cause. For instance, the actions of industrial employees are often quite incomprehensible on the common supposition that they are only actuated by simple economic motives.

The logical and economic purposes of men form a single thread in the total pattern of their lives, other strands of which are their affections and dislikes, their skills, their interpretations or understandings of events and things about them, their many impulses and desires, and their accustomed forms of collaboration. Each person's way of life is

¹ M. P. Follett, *Creative Experience*, Longmans, Green & Co., New York, 1930, p. 124.

composed of innumerable factors of this sort, and each factor is itself determined by the remainder. The activities of people are thus a manifestation of a complex and mobile balance between all the forces and tendencies of which they are composed.¹

He quotes, as an example, a discussion of the possible causes of boredom when so-called monotonous work is being performed. He says:

A mechanic may be performing a simple repetitive action, but he is necessarily doing far more than that: he is digesting his last meal and is vaguely conscious of a variety of bodily sensations; he has an attitude towards the company for which he works and for many of the individuals within it; he entertains loyalties and antagonisms, standards of conduct and expectations with regard to the conduct of others; he has thoughts and reveries, and he is in a working relation to other people; finally, the mechanic is performing his paid work. If this total pattern is pleasing, and if the formal work is satisfactorily adjusted to the remainder of the pattern, the chances are that the mechanic will not be bored. Thus boredom, like so many sentiments, is a part of an individual's attitude towards his way of life as it is being enacted at the moment.²

All this has a very practical bearing on the problems of 'difficult' behaviour in school. If behaviour is response to a 'total situation', to a multiplicity of factors all mutually interdependent, then it is possible sometimes to alter the child's response by altering factors that are not apparently of very obvious importance. Mary Follett writes:

On the social level, cause and effect are ways of describing certain moments in the situations, when we look at those moments apart from the total process.³

¹ T. N. Whitehead, *Leadership in a Free Society*, Oxford University Press, London, 1936, p. 11.

² *Ibid.*, pp. 11-12.

³ M. P. Follett, *Creative Experience*, p. 61.

So also in the analysis given above (page 208) of the material obtained from study of the 'difficult' children, certain groups of factors were arbitrarily selected for consideration as possible 'causes' of the difficulty; such as influence of the home, influence of a largely academic curriculum, and so on. But when considering what can be done to help these children it is necessary to bear in mind the fact that all these different aspects of a child's total situation are interdependent; and this means that often by altering one or two, perhaps not very obviously important factors, it is possible to alter the tension of the whole. So it can sometimes happen that one person treating a child in a different way from before, perhaps even only a change in tone of voice, can alter the child's whole attitude. It is reported from a Child Guidance Clinic that one child who was sent for treatment actually received none, in the ordinary sense of the word, but was allowed to come once a week and make tea for the clinic staff; he showed very marked improvement in his behaviour, although there were apparently no other changes in his situation. Certainly a child's response to a friendly or antagonistic tone or manner on the part of an adult is immediate, and the effect on a difficult child's general behaviour when he or she realizes that some one genuinely likes him, is often astonishing. Unfortunately, in the rush of school life, a difficult child can cause such a disturbance of the class atmosphere, and so easily upset a lesson, that it is sometimes rather hard for the staff not to come to dislike her; hence a vicious circle, for the more she senses that she is disliked, the more acute her emotional tensions become, and the more frantic her misguided efforts to solve them.

The very real problem for the staff, of maintaining a genuinely friendly attitude towards a child that is thoroughly tiresome, will be discussed again when considering the question of Point of View.

CHAPTER II

SOME ASPECTS OF CAUSE AND EFFECT IN WORK EFFICIENCY

I. AN EXPERIMENT IN REST PAUSES

MANY experiments on the effects of rest pauses have been carried out in industry. I am giving one in some detail because the findings in this experiment illustrate, in concrete form, some of the most important recent discoveries about causal factors determining behaviour. It is an experiment of the Western Electric Company of Chicago, and it has already been mentioned in this book in connexion with techniques of interviewing.

In 1929 the Western Electric Company had, for three years, been trying to find out by carefully planned experiment the effect of illumination upon the worker and his work. No results had been obtained whatever, no difference in the workers' output could be observed between the room where lighting was experimentally lessened and the others. But there were more problems needing solution; for instance, the effects of fatigue and monotony both on the work and on the worker. A second experiment was therefore begun.

A group of six workers engaged in the repetitive operation of assembling telephone relays was selected. These six were segregated and arrangements made for measuring their output accurately. But the first experiment had taught the company that where human beings are concerned you cannot change one factor without unknowingly changing others, and one of these other factors was clearly mental attitude; so, in order that possible changes of mental attitude might be observed, an observer was put with the six girls to record alterations of every kind. Actually, as we shall see, it turned out that the greatest change was this observer

who was put in to notice changes—for his presence constituted a fundamental difference in the day to day social situation. The Company then began to institute experimental changes, each one being thoroughly discussed with the six girls beforehand. The first experimental change deliberately introduced was the establishment of rest pauses:

1. After several trials a rest pause of ten minutes both in the morning and afternoon was instituted. The result was, as shown by the output records, that not only had the time lost during the rest pauses been made up by increased efficiency for the remaining time, but also that the total output for the group was very much higher than it had been before any changes were made at all.

2. Next they tried shortening the working day, stopping at 4.30 instead of 5 p.m. The total output again went up.

3. Then they further shortened the working day, stopping at 4.0. There followed a slight fall in total daily output, though hourly output showed an increase; thus here they had apparently reached the point at which the added efficiency due to rests could not make up for the actual time lost.

4. But then the Company, in order to have a 'control' against which they could check the effects of the change, put the group back to the full working day, knocking off at 5 o'clock. If the shorter hours had been responsible for the rise in output per hour the level of production should have fallen again after this change; but here came the surprising fact—it did not fall at all, but remained as high as ever.

5. The research officers of the Company decided to put the group back to the original conditions of work for three months, no rest pauses, no special refreshments, full working day and 48-hour week. The result was even more surprising. The hourly and weekly output rose to a higher point than it had been at any other time in the whole period. After twelve weeks of this (the period agreed upon by the workers) the group went back to the best conditions of rest pauses and refreshments, and output proceeded to reach even greater heights.

The company's report at this stage of the experiment contains the following conclusions:

1. There had been a continual upward trend in output independent of the changes in rest pauses during two years.
2. There had been a decrease in absences of about 80 per cent among the girls since entering the test room.
3. Their general health when examined by the doctor every five or six weeks showed an improvement.
4. There had been an increase in contentment among the girls in the test room; they showed themselves more eager to come to work in the morning. The girls themselves felt that important factors in their greater enjoyment of work were greater freedom, less strict supervision, and opportunity to vary from a fixed pace without reprimand from a gang boss. When questioned they could not say exactly why they were able to produce more in the test room but they felt it had something to do with these freer and happier working conditions.

2. PROBLEMS OF SUPERVISION AND MORALE

All this led the Company to the conviction that the changes shown were due to changes in mental attitude. Since they had set out on the experiment prepared to notice any unexpected changes, they had kept records of any conversations or remarks made by the girls, and of any changes or special circumstances in the home environment of each girl. It had been possible to keep such records because the observer in charge of the test room was interested and sympathetic; he had avoided any hint of the supervisor in his methods, and had taken a personal interest in each girl and her achievement. Also it was inevitable that the group should have become interested in its own achievement, because the experiment created wide interest and the girls shared in the reflected glory. The effect of this was shown in their attitude to the high executives of the Company, and in their behaviour when being consulted before every change of programme, when their comments were discussed. For at first they had been shy, uneasy, silent, perhaps suspicious of the Company's intention.

Gradually, however, they became more confident and finally showed candour in their talk.

What then had happened? The only possible explanation seemed to be that the Company had, unknowingly, and as a by-product of their attempt to experiment with changes of physical environment, introduced a far more important change of social environment. What the physical changes, rest pauses and so on had done was to convince the girls that the Company really were taking an interest in their welfare; that it was their own ideas about what they wanted and their own well-being which ranked first and the work second. Once they were convinced of this it did not matter if the rest pauses were taken away, for the Company were still interested in what they did. To return to the 'original conditions' was impossible, unless the Company gave up the whole experiment.

The Company, therefore, concluded that the increase in efficiency was due to betterment of morale rather than to any other of the alterations made in the course of the experiment. They concluded also that their findings for these six girls had a very important bearing on the whole problem of supervision throughout a staff of 40,000 people. For in this group there had come to be practically no supervision at all; without any additional drive or urge the girls were continually doing their best, and yet they were not at all aware that they were working any faster.

I have quoted the Company report in saying that the girls were getting practically no supervision; in a sense, they were getting closer supervision than ever before, but of a different kind; the girls felt they were not being supervised at all simply because they had accepted the supervisor as a friend. Since, therefore, the problem of supervision seemed to be the crux of the matter, the Company decided to study the supervisory practices followed in the works, and to do this by means of interviewing all the employees and obtaining from them honest comments, their honest likes and dislikes about their working status.

The method used in the interview has already been described here. Actually this was so successful that, as has already been mentioned, over 21,000 of the 40,000 employees were interviewed over a period of three years, the average length of interview being one and a half hours. But although the method proved so workable, the results were again quite different from expectation.

The original aim of the experiment, that of securing information to form a basis of alterations in working conditions, was found to be not as straightforward as expected. For they found that when complaints referred to material conditions of work, smoke, fumes, cold, and so on, it could be accepted as having some basis in fact, but when complaints referred to other people they had such a personal bias that they had little bearing on the facts at all.

3. RESULTS OF THE FEELING OF PERSONAL FUTILITY

Here, then, arose a very interesting question. How was it that these thousands of people, a very fair sample of the industrial population in the United States, should be so unbalanced in their personal judgments, so unable to distinguish between fact and fancy? To answer this question the research staff had to explore the findings of other workers in psychological fields. They found, for instance, that Janet, the French psychopathologist, had studied the state of mind which he called obsession; amongst other symptoms, people in this state showed:

1. An inability to attend to what was really happening around them, so that they could not get on well with other people because they were always liable to do or say something that was quite inappropriate to the situation.
2. The feeling of being impelled to think about something they would rather not think about.

Now, although this state of mind in its extreme form is a matter for abnormal psychology, Janet's great contribution

to normal psychology was that he showed how a person who is not in any sense an obsessive may under certain conditions behave as though he were one. The conditions he gave were:

any experience of personal inadequacy, or feeling that he is personally inferior, if it occurs in a situation which seems to him important.

Now this feeling of personal inadequacy may be provoked by fatigue, or by some physical disability, or illness; most of us know how obsessive one can become, when over-tired, about some trivial matter that has gone wrong. But most important is the feeling of personal futility in relation to other people; and apparently when once it is provoked even the most capable person is liable to behave irrationally, that is, his behaviour will be inappropriate to the situation; for instance, he may become worried about something which he takes to be fact, but which really exists only in his own imagination or memory, and in this state he will become incapable of controlling the direction of his attention.

Thinking over these facts, the Research Division asked themselves two questions:

1. Do the conditions of work in a modern industrial organization make the greater number of people suffer from feelings of personal futility?
2. Or do the whole conditions of life in a modern industrial city in some way predispose workers to this feeling?

The answers they gave to these questions do not concern us here, but we can ask the same question about school life. Does the school system produce situations in which individual girls often feel personally futile? Or do the conditions of the home life of the girls often make them feel this? In so far as they do, just so much must one expect to find children unable to concentrate, and relapsing into unreasonableness, into a state where all they have been so carefully taught is temporarily wiped away, where they are

not sufficiently in touch with the reality around them to behave appropriately.

4. THE FEELING OF FUTILITY IN SCHOOL

Inappropriate or irrational behaviour in school may be of many kinds, for instance:

- (i) Facetiousness, which is refusal to take serious note of the situation at all;
- (ii) Childishness, which is regression to a form of behaviour which was appropriate once but is no longer so;
- (iii) Morbid fears and anxieties: such as 'losing one's tongue', examination fright, stage fright, losing one's head.

But what sort of situation in a schoolgirl's life produces the feeling of personal futility?

First, to take work as an obvious and much discussed source: there is accumulating evidence that, up till now, the school system has not been able to take into account fully enough the tremendous range of individual differences in ability and temperament. This raises the whole question of marks and competitive methods which emphasize failure. Clearly the girl in the 'B' class must very often feel futile, so far as her school work is concerned. If this feeling does not always drive her to irrational attitudes, it may be only because she has developed compensating satisfactions. For instance, she has perhaps been able to convince herself that 'it doesn't matter very much'; for by a 'don't care' attitude she at least manages to preserve her own mental poise, even though it may mean that she actually learns very little. Or she may find sufficient compensation in success at games. Or it may be that her home situation is so satisfactory that she is able to accept her school failures philosophically.

Secondly, as we have already seen, the home situation is often not so satisfactory from the child's point of view. And if there is a sense of futility at home, this matters more than failure at school, because if you are bad at your work, there are often compensations; but if you are a failure at

home, then your whole sense of your existence as a person is involved. And the conditions which make a child feel personally futile at home are apt to be very simple and primitive; perhaps there is a younger brother or sister, and parents are often exceedingly blind to the fact that they show favouritism—unfairnesses which often do not mean much to an adult, but which hurt a child bitterly; or perhaps she is an only child, continually overpowered by well-meant but misguided adult interference.

But there is a third possible source of feelings of insecurity which the Western Electric Company's experiment brings out, besides work and home conditions; that is—a person's relation to the outside world. Some people may say: 'Oh, but surely the modern girl cannot be suffering from any sense of not being sufficiently important—quite the reverse, she bosses her parents, goes where she likes, surely the trouble is that nowadays the young are made to feel that they matter far too much?' It is no doubt true that modern girls are getting far more rope than their parents had. But there is the saying: 'Enough rope to hang oneself.' Recent studies have shown that the sense of importance that freedom may bring can also bring a deep sense of insecurity. It seems that there has been a tendency to confuse a true sense of importance with a spurious one. For instance, a comment often heard about a difficult child is: 'Oh, she's only trying to get attention'; and this remark is made with the implication that you must do everything possible to prevent her getting it. But it is a safe rule that if a child continually makes a nuisance of herself, trying always to get more than her fair share of attention, it is because somewhere or other she has been starved of her due share of the feeling that she matters in the world. Of course, it is necessary to notice the difference between being important to oneself and being important to some one else. If we are not given a chance to be important to some one else, we all tend to 'regress' as Freud calls it, to that state of babyhood when we felt important to ourselves alone;

but this regression is only a symptom of something else—of the lack of a chance to be usefully important in the present.

It was apparently because the Western Electric girls felt that what they did mattered to some one else, and that it was more than a mere question of dollars for themselves, that their ability to work went bounding up, even without their knowing it.

5. NEED FOR A SENSE OF SOCIAL FUNCTION

What is the practical implication of this? Certainly every girl in school, but particularly in the Middle School and amongst those of mediocre ability, needs to feel that she has a part to play, a social function, something to contribute; and not something that is created artificially, a perfunctory duty, but something that she feels really matters. Just how this is to be done is another question, but we are finding more and more evidence that it is necessary, not only for the development of what are usually called 'moral' qualities such as strength of character, self-control, emotional balance, and so on, but also for the development of intellectual qualities. This very close connexion between capacity to concentrate and our social relation with the people around us means of course that what happens in school to each individual child in her work is affected by all kinds of influences, both inside school and out. And some of these outside influences must, I think, be taken into account by the school and allowed for even if they cannot be altered. Obviously social life is startlingly different now from what it was when the school system was devised. It may not have mattered in the 'eighties or 'nineties if any child was an isolated atom in school without even the opportunity for social function that comes with team games, it may not have mattered because social life outside was quite different; society was very much more what the anthropologist calls closely knit, all the major activities of life were determined by tradition and performed

as habits so that every person 'knew his place'. But now with traditions falling about our heads, the widening of opportunity has brought a great loss of certainty and security. Can the school provide an oasis in the turmoil, a closely knit society in which each child can learn co-operation, how to take a useful share in group activity? One parent said: 'If Betty is away for a day it matters to nobody but herself.' But if the schools cannot provide all the Bettys with a sense of being some use, there is the possibility that we shall get more and more young people, when they leave school, feeling so tired of not being able to find a place for themselves that they will overbalance either towards political extremism, with its artificial exaltation of some ideology and the obliteration of the individual, or towards neurotic preoccupation with themselves.

CHAPTER III

CONCEPTS USEFUL AS INSTRUMENTS

I. LOGIC VERSUS TRADITION

A CHANGE in our ideas of how social groups exist at all has been going on apace in recent years, very largely influenced by the anthropologist's first-hand studies of simpler communities than our own.

In the past there has been a tendency to assume that social organization was something which happened from above, a tendency to think, like Rousseau, that we were all free, separate, self-contained beings, chained together by laws, atoms organized from above by government decree. But recent research has shown that this *political organization* is only one very small part of *social organization*. Durkheim has said that organization by the state can never be effectively substituted for that voluntary collaboration in work and living which is the symptom of a free society.

Questions about the ideas underlying the modern type of 'free' school were frequently raised by individual members of staffs during this experiment. The following analysis made by Mayo¹ of the types of responses that we all make to our surroundings, is useful as a basis upon which the answers to these questions may be sought. He divides responses into three kinds for the sake of convenience, although these cannot be looked upon as water-tight compartments:

(a) *Logical Responses*

These are based on an intelligent and independent judgment. It is often assumed that education should aim at developing this kind of response over the 'whole system of individual living'; but in fact the majority of us, far more

¹ Elton Mayo, *The Human Problems of an Industrial Civilization*, p. 164.

than we know, are compelled to accept the judgment of society in most matters; within certain limits, we let society decide what kinds of food we shall eat, what kinds of clothes we shall wear, the kind of house it is suitable to live in and so on.

(b) *Non-logical Responses*

'This is because,' says Mayo, 'understanding and adequate judgment are acquired late and by many people not acquired at all, except within some limited area'; this means that there are exceedingly few people who have learnt sufficiently how to think for themselves, how to exercise independent judgment and take an unbiased view of the facts in any but their own particular line of work. It means that the majority of us must live the greater part of our lives by something other than individual judgment; our responses must be non-logical. But this does not mean that they are necessarily illogical, that they are necessarily out of all intelligent relation to the facts; it means that the intelligence is not in the individual, it is in the group. What each of us does may be quite sensible and adequate to the situation but we have not thought it out for ourselves, we have simply followed custom and behaved as we have been taught to behave and as it is considered fitting to behave. Often we can give very good reasons why we have behaved in such-and-such a way, but these are only 'rationalizations' of behaviour determined, not by logic, but by sentiment. For just as logical attitudes and responses are organized by means of our conscious awareness of the reasonable relations between them, so non-logical attitudes and responses are organized and given coherence by means of sentiments.¹

According to Mayo, education should aim at making it possible for a person to make a logical and intelligent response when necessary, by giving a 'technique of inquiry',

¹ For an account of the development of specific sentiments, see *The Education of the Emotions*, by Margaret Phillips, published by Allen and Unwin, 1937.

so that when the social code we have been brought up under, or any part of it, breaks down, we can then revise our code intelligently. But to expect individual logical judgment over the whole field of living is to ask the impossible and is inviting breakdown of the organism itself.

(c) *Irrational Responses*

Both the irrational and the non-logical response have no roots in the reasoning power of the individual; but the non-logical is at least reasonable in its results, or tends to be, though there are obviously some social codes which are themselves unreasonable, either through being out of date, or because the originators themselves did not sufficiently take into account the real facts. But the irrational responses both grow out of irrational thinking and end in irrational action. This is the kind of response which occurs when a person has not learnt how to think out logically for herself what she should do, and yet there is either no social code to guide her or for some reason she resists the code; she is therefore at the mercy of blind impulse and of that kind of thinking which has been called 'pre-logical' which is full of confusions and misunderstandings and distortions.¹ It is the

¹ Examples of irrational responses involving distortion of the facts of personal relationships, were sometimes observed in connexion with the interview technique used in this experiment and were comparable with those observed on a large scale by the Western Electric Company. For occasionally it appeared that girls had given accounts of the interview work carried on in the school that were quite different from what had in fact taken place, and it was interesting to note that these accounts nearly always came from girls who were being interviewed because they were form leaders or making an apparently satisfactory adjustment in school. The reason for this may have been that in fact their satisfactoriness was rather precariously achieved, and that, unlike the 'D' group, they could not gain the relief of a frank discussion of their difficulties, because they had never been able to admit that they had any. The unadmitted feeling of insecurity would therefore be stronger and more liable to cause irrational responses, together with the feeling that the whole interview was unnecessary prying. Naturally the attitude adopted by the parents towards the whole experiment also influenced such responses, and sometimes it was clear that similar mechanisms of unadmitted difficulties were behind the parents' attitude no less than the girls'.

kind of response which is pre-eminently the concern of psycho-analysis; but since it is the result of a breakdown in the social process, and since the breakdown seems to be occurring everywhere, it is important that others besides the psycho-analyst should at least be able to recognize it. When a girl steals although she has no shortage of pocket money, or continually breaks reasonable rules and is rude to those who are kind to her, or a man is perpetually changing his job because he cannot get on with his boss, all these are irrational responses. Mayo points out that the non-logical response, the response which is in conformity with a social code, although it 'makes for social order and discipline', and for effective working together, only operates within a restricted range of activity because social codes can only grow slowly. Also it makes for 'happiness and a sense of security in the individual . . .' We find it specially strong in primitive societies and small undeveloped communities, for it seems that this 'concentration of intelligence and decision in the group rather than in the individual works exceedingly well provided that the group does not have to face too many novel problems simultaneously.' But if it does have to do so, perhaps by being forced into a cultural clash with a group having different non-logical responses, then there often happens a complete breakdown of social living.

In school life the clash of two different systems of non-logical responses is illustrated most obviously when the standards and social traditions of the parents are markedly different from those of the school. If not too intense, such a clash normally has a fertilizing effect, and stimulates the child's psychic growth. If too intense, the effort to integrate the opposing codes may cause a relapse into irrational behaviour. This was apparently a factor in Tina (E.H.)'s difficulty, who was reported by the staff as 'sometimes public-spirited, sometimes it seems as though she *must* talk at the wrong time.' This impression that she was impelled to talk, as it were against her will, is very characteristic of

irrational behaviour; and an interview with her mother revealed amongst other things that the child was very sensitive to the differences of social code in her home and amongst her friends at school.

2. FREEDOM AND CHANGE

The study of non-logical responses emphasizes the need for stability, but this does not mean that there is no need for change. It means that the most important problem in any complex institution such as a modern school is to find means that will ensure enough social bonds to keep people together as a group, while side by side with these there is change in those parts of the social code where change is needed. This is clearly a problem which arouses strong emotional attitudes according to individual differences in temperament. The very conservatively minded sees the possible disintegrative effects of change so clearly that she can think of nothing else; she feels she must cling to things as they were at all costs. The extremely radically-minded sees the places where the existing code has ceased to fit so clearly that she wants to change everything and as quickly as possible. In schools these two extreme attitudes, and also every degree of opinion between these two extremes, are naturally found amongst the various members of staff. On no subject is there more divergence of opinion, for instance, than on the question of 'freedom'. The following extracts are quoted to show what kind of contribution psychological research has to make towards clarifying the meaning of this much-discussed concept. Mayo says:

One of the most interesting observations that is reported variously in all five of Piaget's published volumes is that the development of logical capacity proceeds step by step with the socialization of the child's thought. It is known that an adult of insufficient social experience will not be merely socially maladjusted; he will also be found to be using inferior logical techniques. Piaget makes it evident

that a child has to acquire a capacity for making the responses socially appropriate to different situations before he can possibly understand either the responses or the situations. His first achieved code of social behaviour is therefore somewhat suggestive of Pavlov's 'signal reflexes'. His responses are not, of course, mere reflexes, but they nevertheless are responses to signals rather than to situations. It is only as his social experience accumulates and his logical formulations are elaborated that he can possibly develop reasoned comprehension and independent judgment. But he cannot achieve this unless he continues to live in a sufficiently ordered and sufficiently stable society. The psycho-analysts have wisely observed the far-reaching effect of a disordered social and family environment upon a child's temperamental stability and happiness. Piaget's inquiries enable us to gain some understanding of the mental privations such an infancy implies.

Piaget's researches seem to indicate that even in a civilized community with an elaborate educational system the individual must pass through a stage in which he develops appropriate and ordered responses to social signals without any real capacity to understand or judge social situations.¹

Susan Isaacs says:

. . . it remains true that the child has great need of an ordered background of routine in his life. We have seen that from at least the end of his first year he is by no means a creature of mere wish and impulse, but already has powerful controlling tendencies in his own psyche. The early development of this primitive conscience or *super-ego* does not support the notion that the little child can make use of an absolute 'freedom'. What he needs is that his parents and educators should represent to him a stable and ordered world of values, closely related to his real abilities at any given age, and based upon an understanding of his psychological needs, but yet firm and unwavering in themselves. There are times with every child when he needs to feel that those whom he loves are not at the mercy of

¹ Mayo, *The Human Problems of an Industrial Civilization*, pp. 163-164.

his own impulses, but are firmer and stronger and more reliable than he.¹

Probably it is useless to discuss the meaning of 'freedom' without asking the question 'freedom for what?' Whitehead, after intensive experience with working groups in industry, attempts a definition of what people appear to want, what they need their freedom for. He says:

To communicate attitude to others and to be communicated with—this is somewhere at the root of human association. Moreover, these communicable attitudes are very usually focused on activities having a logical purpose. The desire for individual expression is somehow connected with the desire to do 'worth-while' things together with other people. And the liberty consists in the opportunity to make one's own chosen, but fitting, contribution to the purposeful activity of the group. To choose and to control the form of one's contribution is to exercise personal initiative; to stamp the group with a character it would not have otherwise had. This is to obtain the satisfaction of *personal adventure in social activity*.²

3. FINDING A SOCIAL FUNCTION

Naturally, the problem is not entirely the same in a group of children and a group of adults; the business of growing up is to a very large extent the business of discovering what one's own contribution to any group can be, of discovering what one is able to do, and what the group is able to receive. In adults, on the whole, these discoveries have to some extent been made, but in childhood both sides of the relationship are in a continual state of flux. At one age it may be the capacity to spit farther than one's contemporaries that wins one an assured place in one's immediate group. At a later age it may be some specialized knowledge, or some special quality of character. In this

¹ Susan Isaacs, M.A., D.Sc., *The Psychological Aspects of Child Development*, p. 39.

² Whitehead, *Leadership in a Free Society*, pp. 229-230.

experiment, owing to the limited time available, it was not possible to discover just what contribution each child interviewed was making to her particular group of cronies. But certain general facts were quite clear; first, that a number of the 'difficult' children had not achieved any sense of being part of any group in school, they had no particular friends, and they had never been chosen for any office in the school or been a member of any team. This raises the question, also discussed by Whitehead, of the size of the groups. For instance, he says:

Unless the individual has the freedom to choose the form of his contribution there can be no self-expression; and equally unless the group has, for the individual, a high value, it can be of no interest to contribute to it. Thus, it is of the essence of this satisfaction that the individual shall be acting with a respect for the continuing importance of his group. Social responsibility is required for satisfying self-expression. This enables an individual experience to become a part of something larger and, in his thinking, more important than the single person. However, if the group is too large, it is not easy for the average member to make a noticeable impression upon it. Hence, most people associate in fairly small groups, comparable in size with a large family; this is true even of those who control large enterprises. An individual who could make no direct impression on a large mass of people may be an effective, or even a leading member of a small group within it. This small group then makes its characteristic contribution to the larger organization, and in this way the individual becomes effective on a wide scale and avoids being submerged in a sea of undifferentiated humanity.¹

Certainly there were a number of children who could apparently find no way of emerging from the 'sea of undifferentiated humanity,' other than by 'naughtiness'. There were also several rather notorious 'gangs' in which it was clear that the members were providing each other with

¹ Whitehead, *Leadership in a Free Society*, p. 230.

a sense of importance and security that each needed; in one, the leader was an older girl, of a maternal type, and interviews with the other members revealed the fact that they were all suffering from rather unfortunate home circumstances, but were finding compensation for this in their relation to their motherly leader and the idealized family unity of the gang. In another gang, the leader was the bold and defiant type, and her followers were mainly rather timid 'only' children, who obviously revelled in the vicarious sense of adventure and heightened feeling of kinship that came from their leader's exploits and the resulting retribution on the group. These gangs stood out because their leaders had not entirely accepted the sentiments of the wider group of 'the school'—that is the sentiments of the staff and the Head Mistress and the law-abiding members of the school. There were, of course, other gangs that were not so conspicuous because they had accepted the major sentiments of the school about what 'is done' and 'is not done', and were obtaining their sense of solidarity in law-abiding achievements. But all of these observations only served to confirm the truth of such statements as that:

Doing things together and sharing sentiments is a fundamental human need.¹

And also:

. . . Men seek the society of their fellow creatures, but they need something more than mere physical propinquity. To be satisfying, social contacts must provide for activities performed in common which lead to an immediate pleasure in the exercise of social skills and sentiments, and which also are logically ordered in terms of an ulterior purpose; by these means, stable relationships between persons become established. The ulterior purpose is to contribute to the future social situation.²

The sentence—'activities performed in common . . .

¹ Ibid., p. 182.

² Ibid., p. 30.

which also are logically ordered in terms of an ulterior purpose'—is very significant in the light of the number of remarks made by the children about 'not seeing the point of' learning a certain subject. It is true that, as Mayo has pointed out, a great many social responses are acquired by the young child without his seeing the point of them, simply as a matter of course and as part of the social code. But it seems that after the beginning of adolescence, when the child is increasingly asked to look ahead and act appropriately for her future, it becomes extremely hard for her to work at subjects such as Latin or Mathematics if they seem utterly unconnected with anything she intends to do.

4. THE CONCEPT OF EGOCENTRICITY

I have already mentioned (page 116) Piaget's evidence showing the difficulty that a child has in learning to recognize the difference between thoughts and things. Here it will be as well to enlarge upon this idea a little, for Piaget has provided a concept that has wide application to difficulties in school.

In discussing his studies of the conversation of young children he points out that we are not born knowing that thought is different from things; we can only find it out laboriously as a result of experience. A baby does not know that the memory of her mother's face or imagined picture of her, and the sight of her, and a pain in the stomach when hungry, are all different kinds of realness; so thoughts and things can get all muddled up in her mind, and she can be as terrified of an imagined dragon as of a real one. The result of this confusion between thoughts and things is a special kind of thinking, a kind which is not logical in the adult sense, but is prelogical; for if you do not know that thought is something special then you do not know that it has special laws. To rational thinking an idea is something provisional, it is something to be tested to find out whether it is true, that is, whether it corresponds with a fact, and

whether it fits in with other ideas and is thus logical. But just as a child cannot know, until she has laboriously experimented and discovered by mistakes, that nature obeys laws that are quite independent of her feelings and desires—that fire burns and china breaks—in other words that there is such a thing as physical necessity; so she cannot know at first about logical necessity, and she cannot know that one idea necessarily involves another, and that if you say a thing is white then this idea necessarily involves the further idea that it is not black. Since, then, in the first stages of childhood, any idea is as real in its own right as a table or a chair, and it does not occur to a child that ideas need testing, proving, justifying, this means that she can believe quite contradictory ideas. Piaget has given the name ‘ego-centric’ to this kind of thinking, because if you have not recognized that your own thought is something relative and personal to you, you will not recognize that other people have different thoughts and feelings and a separate point of view.

Now this is, apparently, the way we all think in early childhood and none of us has completely outgrown it; we are all liable at times both to ignore the laws of logic and the view-points of others; we probably do it all the time in dreams, some of the time in reveries, and also as we have seen already, when we are tired or emotionally stirred, particularly by the emotion of inferiority. But how does a child ever learn that her thought is private to herself? Piaget answers—‘by putting it into words’, for as soon as it is expressed then others can see what it is, and perhaps challenge it, and gradually the child herself can also learn to see it detachedly, and can see the irrationalities that she could not be aware of when it was merely blind unexpressed thinking. So also in the Western Electric experiment the expression in words of a private worry often did much to eliminate the worry, or at least to show that its causes were not what they seemed. In the light of such facts as these Mayo coined the aphorism: ‘*You can win a*

person's co-operation more effectively by listening to him than by talking to him.'

This state of mind, which Piaget has called 'egocentric', is a condition of thought, not of emotion, and must be distinguished from the word 'self-centred', as used in ordinary speech, which is a condition of emotion in which interest is turned towards the self. An adult can be emotionally self-centred even when her thought is on the whole free from childish egocentricity, while another may be full of altruistic intentions but deeply egocentric in her thinking.

5. THE MECHANISM OF PROJECTION

This concept of egocentricity is particularly useful, I think, because it provides a bridge between the common-sense view of mental life and the findings of the clinical psychologist. It makes it easier for a person who has had no first-hand experience of the clinical method to believe that extreme distortions of common sense do go on in all our minds at various times. One of the types of egocentric thinking, for instance, that plays a very important part in psycho-analytic theory, is the already mentioned mechanism of projection, by which attitudes and desires that are really in oneself become projected into people around one. So a child's primitive feelings of anger against adults who have thwarted her wishes are often too intense to be borne, and to escape from the tension of her own rage she projects them into something outside herself. This is easier, when, in the egocentric state, there is no clear division between one's sense of oneself and of other people. An example of projection is perhaps shown by the girls who say, 'I don't like French. I am sure the mistress hates me.'

Another kind of confusion of identity frequently occurs when a child, who happens to have difficulties of emotional relationship at home, projects the situation on to some one in the school, and behaves towards individual people in authority at school as if they were her father or mother or elder sister, or whoever it is that has been causing the

trouble at home. The fact that this irrational confusion occurs is a most important aspect of school discipline problems; it means that if a child is a repeating offender it is always necessary to look out for this irrational element. It has been hinted already that there are various ways of dealing with it. If any one can win the child's confidence enough to get her to talk about the difficulties at home the projection can often be stopped, for the child herself may suddenly see that she has muddled up parents and staff. Or sometimes, when the cause of the antagonistic behaviour is clear, or even when it is only guessed, the mistress can avoid treating the child in any way that is too similar to the parent's treatment. For instance, if it is clear that the father nags at home, then anybody who seems to be urging the child at school may for the time being become 'father' in her mind; the mistress can then take the opposite line and use encouragement where she might have used criticism.

There is here, as in all questions of taking into account the needs of the individual child in school, the problem of time. Quite naturally, many members of school staffs will say: 'We have no time to consider such complicated and curious idiosyncrasies of the mind, even if we wanted to.' The directors of the Western Electric Company might have said the same, but they decided that for them, in the light of the new facts discovered, it was financially worth their while to make the time. The problem is perhaps more intricate in schools, with the complex ramifications of the examination system, but it is also difficult to estimate the amount of time that is already being spent in trying to fight against an irrational response by rational argument. For instance, Rachel (E.H.), aged fifteen, I.B. between 160 and 170, was listed in group 'D' as

openly defiant over work and lazy,
no sticking power,
work very poor,
has wasted her time here,
everything falls off her like water off a duck's back.

In the first interview she was blandly cheerful and there seemed to be no subject upon which she had particularly vehement feelings; an interview with the mother also produced an apparently rosy picture of home life. But soon after the interview Rachel was again in trouble over an act of open and apparently motiveless defiance, and another talk was arranged. This time the blandness disappeared and Rachel poured out her feelings of injustice with complete frankness. It appeared that she felt her mother and two grown-up sisters to be strong-minded people who seemed to take it for granted that she should do exactly as they had done; but she felt herself to be a quite different kind of person from them, and yet also without sufficient power to insist on being herself. She said her mother, to whom she was very devoted, was nevertheless always haranguing her about something: 'She simply flows on, you'd think she'd never stop. In the end I find it simply goes in at one ear and out at the other.' In short, it appeared that Rachel had no grudge against the school, or any deliberate intention of not working; it was only that she had, quite irrationally, projected her feelings about her family into the school, and come to feel that every person in authority was trying to force her to be something that she knew she had no power to be. Since this was the first time she had ever put this feeling into words she had never up till now had any idea that it existed, but now that it was said her whole manner and attitude to school work was different.

There are naturally many more concepts in modern psychological theory which can be very useful to the educationist; here only one or two have been given by way of illustration, and in order to indicate ways in which answers to some of the questions raised by the staffs may be sought. Other important concepts, to do with various ways of solving conflicts, have been indicated in the discussion of the chart and the interview material.

CHAPTER IV

A POINT OF VIEW

I. BELIEF IN FREE-WILLED INTENTION

DURING the half-century that has elapsed since the time when schools of this type were first founded, there have been startling changes in our whole mode of living. Obviously our material surroundings are radically different; owing to the growth and application of scientific knowledge of material forces the kind of world that we must educate children to live in is revolutionized. But also there has been a revolution in our knowledge of mental forces, though the new knowledge has only so far influenced popular understanding and popular practice in a spasmodic and fragmentary way. Perhaps the best method of making clear the implications of the new discoveries is by considering the development of our attitude to free-willed intention.

Experiment shows that the earliest phase in childhood is to believe that everything that happens is due to some one's intention; that everything, in nature as well as human action, is done because some one wants it done. So a young child is always trying to find out the reason or intentions that will explain things. All the endless 'whys?' are based on complete ignorance of what we know as impersonal scientific law; everything must happen as a deliberate purpose. 'Why do trees have leaves?' 'Because they like to,' is the sort of answer that Piaget found satisfied young children. So also the wind blows because it wants to, the sun shines because it is kind and wants to warm us. Piaget maintains that the child looks for this kind of causality everywhere because it is the only kind he has any experience of; he has the feeling that things often happen in response to his intention, he goes to fetch his toy because he wanted

it, so everything else that happens must also be because some one wanted it to happen.

Anthropologists have shown how primitive man also looks for intention or will behind every natural event. He believes that rain or fine, thunder or danger at sea, attack by wild beasts or sickness are all the result of semi-human and capricious willing, benevolent or spiteful intention. Such a belief, which is the direct outcome of a certain stage in the development of thought, has in some places led men to tragic extremes of behaviour—as when the oncoming of winter was believed due to anger on the part of the sun, to a wrath which could only be appeased by human sacrifice. The process of passing from childhood to maturity, however, involves the gradual discovery of the existence of impersonal laws, the discovery that the greater number of our difficulties in daily life must be solved by understanding, the discovery that natural laws cannot be wheedled into making things easy for us, and that there is no means of avoiding the effort to find out for ourselves how things work. So gradually men have come to understand that they can gain more real power over nature by looking for impersonal laws and learning to understand these than by continually trying to persuade superhuman or sub-human personalities into doing what men can only do for themselves. So man has discovered in the realm of physical nature that he must patiently ferret out the cause of whatever concerns him; but we have not yet become entirely convinced of this necessity in the realm of human nature. We still lapse back to the old way of thinking when faced with a new difficulty. Particularly are we all liable to look for the cause of any of our troubles in the evil intentions of a person or group, whether it be the Jews or the Kaiser, or the Capitalists, or the Bolsheviks—any one will do as an object for hatred, as a name for that deliberate evil will which pre-logical thinking sees behind every disaster.

So, although we have to a great extent depersonalized

nature, we have not yet done the same to society. Not only do we seek for the causes of social events in the deliberate will of individuals or groups of people, but we also still try to control social happenings by direct command. We can smile at Canute's flattering courtiers expecting even the waves to obey him, but we still expect that the behaviour of groups of people can be controlled by direct command, by what sociologists have now called the 'ordering and forbidding technique'. We often believe, for instance, that simply by act of Parliament people can be made to change their behaviour. The United States believed that by an Act of Congress people could be prevented from drinking, but all the State and Federal police forces in America could not prevent it. Modern sociology maintains that what determines how people behave is not the willed command of the Government, but social and economic forces of which most of us understand as little as our ancestors did of the explosive forces of chemicals and the power of electricity. The single one of these forces which we know most about and have tried to use in every difficulty is the power of physical coercion. So when a Government command is backed up by force, that is, when it concerns an act which can actually be controlled by force, then ordering and forbidding is effective. If you are sufficiently strong you can drag your obstinate horse to the water, but even shooting him will not make him drink, if he does not want to. Only by understanding the natural laws which prompt him to drink can we learn to control the horse's behaviour.

2. ALTERNATIVES TO EXHORTATION

Just as primitive thinking looks on external events as a result of deliberate willing, and believes that all behaviour is a freely willed act of the person who does it, so many of us tend to believe, especially when we are emotionally excited, that the things other people do which annoy us are done on purpose. For instance, an intelligent mother, with a child suffering from nervous twitches, was told by

the doctor that the child could not help it; but still the mother, when annoyed by the child's fidgeting was liable to burst out with a: 'Don't do that!' as if expecting to be able to rouse the child to voluntary effort of control by the vehemence of her command. When a child behaves unsuitably we still believe in the power of 'a good talking to', we try to make her feel ashamed, to rouse her will to do better, we think always that if only she wanted to she could. In fact, our faith in exhortation is hardly less than our faith in ordering and forbidding. Sermons, newspaper leaders, public speeches, are full of attempts to stir people to *will* a desired change—as if all that was necessary was for them to command and it would happen.

The Child Guidance Movement which began in America is one of the first practical results of the growing realization that a great number of our actions are not deliberately willed, and that to try to stir a child to will to change herself is often like trying to goad her into moving her ears when she has never discovered how. So when a child is brought to the clinic for misbehaviour she is not given what we used to call 'a pi-jaw', but is asked to tell her own story, and her parents and teachers are asked to tell theirs, in order that the psychologist can discover what are the forces at work; and when he has come to some conclusion as to what these are, he still seldom appeals to the child's will to control those forces, but tries to give the child opportunity for a different kind of experience.

Other results are beginning to be apparent in the growing applied science of control in industry. For instance, Follet wrote, in an article called 'The Basis of Control in Business Management':

I said that these habits of mind could not be changed either by ordering people or by exhorting them. It is also true that they cannot be changed by convincing people merely intellectually. They have to be changed by giving the people concerned those activities which will bring about the desired mental attitudes.

In most schools much time is still spent in trying to control people by exhorting them, but many are coming to realize that it is not very useful, as may be seen, for instance, by some of the comments of the staff on the method known as 'reporting to form mistress'. Nevertheless the verbal habits left from our exclusive belief in will-power are still very strong and are illustrated by the remarks frequently written on school reports. For instance, 'Has made a great effort and improved', implies that the improvement noticed is a result of deliberate effort; actually such an improvement is very often the result of a variety of changing circumstances which have made it possible for the girl's good intentions finally to take effect. Many of the children about whom such remarks were made as: 'She must try harder,' were found when interviewed to be frankly bewildered by such a demand, for they did not understand what was the real cause of their slackness and so could not remedy it to order; for instance, Rachel (E.H.) (page 250) was full of good intentions and could not understand at all why they all came to nothing. And another child, Natasha (B.C.), aged fourteen, with an I.B. far below the average for the school, was continually being exhorted by her form mistress to overcome her 'slackness' in being frequently late for school. In the interview the child showed no defect of will, but it was clear that, owing to her low intelligence, she made frequent 'howlers' in her lessons and was generally the butt of the class. Delaying the moment of coming to school till the last possible minute appeared to be her irrational attempt to solve the conflict aroused by fear of being laughed at when she got there; but the child herself had no idea that this was what she was doing, and so could not stop doing it by will-power.

Perhaps one of the most dramatic demonstrations of the limitations of voluntary conscious effort is given by the output records of the Western Electric Company Test-room in the closing weeks of the experiment:

The . . . connexion between work effectiveness and total situation appeared in a . . . dramatic form in 1932. During the last year of this group's work in the test room, the depression was at its height, and the whole firm was working short hours. Finally the situation became acute about May, 1932. Several of the operators were in financial straits. No. 2 was struggling, in the face of a difficult financial situation, to hold her home together. On the top of this, the group was informed that, as young employees with only a few years' service, their turn had come to leave the firm. The girls were given several weeks' notice and were paid a lump sum in addition to their wages when they left. As always, the firm was doing well by its workers, and nothing is more revealing than the steady belief in the humanity of the firm's policies, on the part of all its employees. Nevertheless, something not far short of semi-starvation, or charity, faced several of the relay group. A few weeks' employment was still left, and a determined effort to raise output would have done something to ease their financial situation. The actual fact is that output rate fell violently throughout these last few weeks.¹

The author adds that he asked one of the girls, No. 2, some weeks after she had left the firm, whether she could explain the final drop in work effectiveness. He says:

No. 2 replied, 'We lost our pride.' This answer in four words expresses the relation between the individual's total situation and her adjustment to it.²

3. THE IDEA THAT ALL BEHAVIOUR HAS MEANING

Although the general trend of modern discoveries has made the psychologist less inclined to look for consciously willed intention behind behaviour, it has not caused the idea of intention to be discarded; in a sense the idea of intention is used much more than before, but in a biological rather than a logical context. For the psychologist has been

¹ Whitehead, *Leadership in a Free Society*, pp. 52-53.

² *Ibid.*, p. 53.

driven to look on all behaviour as, in a sense, purposive; the question that he asks when faced with any problem of behaviour is: 'What is this person really doing?' A dramatic illustration of the importance of asking this question was given by the attempts to cure shell-shock soldiers during the War; sometimes men were sent back from the trenches to a hospital because they seemed to have, for instance, a paralysed arm, yet when the doctors examined them physically, no nerves or muscles showed any signs of injury. As long as this abnormal behaviour (the inability to move the arm) was looked upon as an isolated habit, or a trait, or a physiological disturbance, no one could explain it, or predict under what conditions it would recur. But as soon as some one, inspired by the researches of Freud, had the idea that the man was *doing* something, acting towards some end (though not a conscious one), the nature and significance of the act appeared clear and it became possible to predict under what circumstances his behaviour would change, and finally to cause it to change. Instead of telling the man that there was nothing the matter with him at all because the doctors could find nothing, and therefore he must be a malingerer and a coward, the doctors let the man do the talking, and then it became clear what was happening. What the man was really doing was blindly trying to find a way out of the intolerable situation of possessing the highest ideals of courage and loyalty, but at the same time suffering overwhelming instinctive fears. It was often said that the man who was terribly afraid and knew it was in a better position psychologically than the man who had such high ideals of courage that he could not even admit his fear. So what the shell-shocked soldier was 'doing' was finding a way out that would at the same time protect both his self-respect and his life, not a consciously chosen way out but a result of the blind struggle to escape from intolerable emotional tension.

So also, when an Upper V girl, Adelaide, aged sixteen, is reported for childishness, it is possible to ask: 'What is she

really doing?' When she came for an interview the following conversation took place:

Experimenter: 'What's the trouble?'

Adelaide: 'They say I'm childish.'

Experimenter: 'What do you suppose they mean by that?'

Adelaide: 'Because I won't answer questions when I know the answer, and they know that I know it.'

Experimenter: 'I suppose you can't say why you do that?'

Adelaide: 'Yes, I can. It gives me a great sense of satisfaction.'

Experimenter: 'Do you ever do the same thing at home?'

Adelaide: 'Yes, much more so.'

Gradually from this there followed a long story about home troubles from which it appeared that her mother had exerted, quite unwittingly, undue pressure of personality upon her children. In refusing to answer questions for which she knows the answer, therefore, Adelaide is not being merely childish, she is *doing something*; what she is doing is satisfying the biological need to assert her own independence as an individual. The fact that she has adopted an irrational method of doing it is due to her circumstances, for from early childhood her mother has unwittingly starved her sense of independence, so that the whole subject has become fraught with emotional tension and cannot now be considered dispassionately. As we have seen, under conditions of emotional stress responses tend to become irrational—blind impulses of half-instinctive behaviour which involve no discrimination of differences in situation, no recognition of the fact that a teacher although *in loco parentis* is not in fact the same person as the parent.

4. TEMPERAMENTAL DIFFERENCES IN BELIEF IN WILL-POWER

Just as the mass of the people must have raged in fear and fury against the reformer who first said it was not

necessary to sacrifice young men and maidens in order to make the spring come again, and just as less than a hundred years ago people raged against Darwin for saying that every different living thing in the world was not the result of a special creative act, so to-day some people are afraid to accept the idea that our own acts are not all deliberately willed; they feel that such a theory upsets all morals, ethics, personal responsibility. Actually it seems that the application of this idea gives more chance for the development of real will-power, not less. For there is evidence that when a child is continually reprimanded for something which she is not doing 'on purpose' and which is actually outside the control of her will, she often begins to be sceptical of the uses of will in any sphere, and comes eventually to shrug her shoulders and say: 'What's the use?' and gives up trying altogether.¹ In practice, it is perhaps a safe rule that when a child continues in failing to do what she knows is expected of her, the behaviour must be treated as either non-logical or irrational, and other methods adopted than the appeal to will-power. It is not an easy rule for some people to put into practice, because certain types have such a great belief in their own achievements through will-power that they expect the exhortation, 'pull yourself together', to be effective with others in every kind of situation. Spranger² has pointed out that the person with a strongly marked theoretic attitude is liable to look upon her own development as having been due to will and choice based on general

¹ The same type of result seems also to follow from being forced to go on for years learning a subject which one is by nature incapable of understanding. Some mistresses held the view that it is good to do this because of the moral training involved. The psychologist's attitude tends to be that for most of us there are enough difficulties, to develop and test one's moral fibre, in learning to make the most of the gifts one has, without imposing the added task of trying to work for years at tasks utterly beyond one's understanding. Many of the children seen, of those below the average of intelligence for the school, had clearly lost the power to try because they had had no experience of their efforts bringing worth while results.

² E. Spranger, *Types of Men*, published by Max Niemeyer Verlag, Halle (Saale), 1928.

rules of life. This belief is not necessarily based upon fact, but it does influence her attitude to other people and make her feel that others also could 'pull themselves together if they chose', and that when some one behaves badly he certainly 'only does it to annoy because he knows it teases.'¹ On the other hand, the person in whom the other attitudes are stronger, perhaps the predominantly aesthetic or social person, is liable to feel that her development has been due to something other than herself, which she perhaps calls the Grace of God, or luck or destiny, or the help of other people. For her it is easier to recognize that other people's actions also may sometimes be dependent upon other factors than will-power, and she finds it easier to look for other causes when will-power seems to be having no effect.

5. THE PSYCHOLOGICAL MIRROR AS AN AID TO REFLECTION

In any organization whose successful working depends upon the ability of a team of experts to pull together, the leader of the team is inevitably faced with problems of the clash of personality. A certain section of economic theory has recently been emphasizing the fact that people's political views depend on their particular material circumstances more than upon their capacity for reasoning; in other words, that we believe what it is to our advantage to believe. Psychological research has emphasized an analogous truth: that our individual moral and philosophical beliefs, if we have tried to develop at all beyond the mere acceptance of the code with which we have been brought up, are determined less by reason than by the particular kind of psychological adjustment we have managed to achieve in our lives. This means that the course of a discussion at a school staff meeting, on, say, questions of discipline, is determined far

¹ The psychologist's attitude towards difficulties of behaviour is not a denial of the fact that children (and adults) often annoy others because they want to annoy (cf. Carol, p. 193). It rather emphasizes the fact that when a person persistently annoys others it is not enough explanation to call it 'sheer cussedness'; it is necessary to find out why the person needs to satisfy his normal desire for power in that particular way.

less by the demands of logic than by the need of each individual concerned to defend her psychological way of living. One member of the group will say, 'I can't imagine any one not wishing to hold a position of responsibility,' because she herself happens to be a person who has developed the extraverted emotional side of her personality, and enjoys power. Another will feel convinced, for instance, that to impose authority upon a child is morally wrong, because she feels the need in herself for the freeing of the creative expressive impulses. It is these individual emotional preconceptions which often make the pooling of experience so difficult amongst different members of the team, for if a mistress does try to put her experience into words to her colleagues in order to reflect upon it, there is often immediate opposition from some one whose temperament makes her experience quite different.

It is probable that a fuller recognition of the nature and inevitability of these differences would reduce the amount of emotional tension that they are liable to cause, and so make more fruitful the discussion of questions of general principle and policy. In any case, however, the head of the team will continue to have a great part to play, as at present, in reconciling the differences, whether there is a psychologist available to help in this work or not. It is certain that the amount of time a Head Mistress spends in listening to what may have seemed like unnecessary personal grumblings and grievances is not wasted time, but a very important part of her work of co-ordination; it has a real constructive effect in helping the reflective solution of problems, even in situations where she is perhaps not able to give any actual advice upon the problem.

SECTION IV

PRACTICAL IMPLICATIONS

PRACTICAL IMPLICATIONS

I. TESTING THE HYPOTHESES OFFERED

IN this book an attempt has been made to give a descriptive study of some of the human problems arising in High Schools, and to give some indication of the kind of assistance that the psychologist might offer towards their solution. A large proportion of the book has been given up to describing the problems as they appeared both to the staffs and children, and also as they appeared to the psychologist. It was sometimes said, during the experiment—‘But of course we know only too well what the problems are; what we want to know is what to do about them.’ Actually, however, it is a truism of reflective thinking that when a problem appears insoluble, it is most often because too little attention has been given to the statement of it. Thus to go on puzzling out the answer to a difficult question, and never ask whether the question itself might not be stated in different terms, is a frequent cause of deadlock.

Since the first step in the reflective solution of a practical problem is to try to ask the right question, to put the ‘felt difficulty’ into words, and the second step is to collect data, the third is to evolve a theory to fit the facts, a hypothesis or possible solution. In this book, Section II is an attempt to describe some of the facts obtained, and Section III is an attempt to state a theory to fit the facts, or more specifically, to say what the psychologist can offer towards the solution of some of the problems described in Section II. The fourth stage of reflective thinking, the testing of the theory to find out whether it does, in fact, work, cannot be described here, because it has not yet been undertaken. In experiments in human relations, as distinct from experiments in the laboratory, the testing out of a possible solution for a felt difficulty must always take time and even

then, owing to the infinite number of variable factors, it is extraordinarily difficult to assess the results. As we have already seen, it is easier to assess results in industry than in education. The usefulness of any of the solutions here offered can never be measured numerically, and the solutions themselves can never be applied wholesale, for there will be some people who will find them more useful and some who will find them less so, according to circumstance and temperament. The nearest approach to a scientific testing of the validity of the hypothesis offered would be a detailed follow-up of the after-histories of the girls interviewed, and an attempt to see whether there had been any change in the relationship between particular members of the staff and a particular girl as a result of the diagnosis offered, and how this change had affected the girl's work and behaviour.

2. A POSSIBLE MODIFICATION OF THE TEACHER-TAUGHT RELATIONSHIP

Obviously there are a great many different ways of organizing a satisfactory school, just as anthropology has shown that there are a great many different kinds of social communities. But just as all societies, if they are to thrive, must embody in their organization certain basic principles, so must the smaller social unit of the school. A main difficulty in both is to find ways of satisfying both the need for a stable structure and the need for sufficient elasticity to allow for growth and for individual variation. In terms of school problems the question is, how can individual needs be more taken into account without so much upset of organization as to cause individual people, both staff and girls, to feel lost and without social support? Actually it seems that these two needs are not so contradictory as is often assumed; for it is becoming more and more clear that individuality is a product of the discovery of social function, and social function can only be discovered within a social structure.

The following suggestions are intended to indicate possible developments within the framework of the present system without any drastic reorganization. The main psychological defects of the ordinary system of class teaching are well known, and not peculiar to these schools; for instance, the extreme difficulty of ensuring that tasks are graded to capacity, of preventing the bright child being held back and the dull child confused; the difficulty of giving enough bodily movement for those children who can only learn by doing rather than by sitting still and listening; the difficulty of making allowance for inherent differences in time of response and the capacity to change quickly from one activity to another, so that one child may be reported for 'no concentration' when she is in fact concentrating very deeply, but upon the subject matter of the previous lesson.

There are also other difficulties which more specifically react upon the staff; in schools where punishments are largely abolished the whole burden for control of the class's behaviour is thrown upon the teacher's personality and her capacity for 'making the lesson interesting'. In a sense it seems that the modern class teacher is liable to fall between two systems. The old system depended upon the children's sitting still in desks and doing exactly what they were told, with punishments to enforce compliance; the most modern systems have abolished punishments, but also they have made a minimum use of the sitting-still-and-listening methods of learning. For this they have substituted the freer use of libraries and the find-out-for-yourself method of learning, so that it is the situation which now controls the children more than the teacher. In the class system however, it sometimes seems that the teacher, as in the fable of the miller and his son, riding on a donkey, has taken too literally current talk about adult repression of children and gone to the other extreme, so that now she seems sometimes to be trying to carry the donkey herself.

It has been seen that there were diverse views amongst the staffs of these schools on the value of such schemes of

individual work as the Dalton Plan. As there was no opportunity for studying its value in this experiment no conclusions can be offered here; however, one general conclusion did emerge from the opinions of those who had had experience of the method, namely that there has been a tendency to blur the distinction between two essential aspects of learning: those which depend upon sheer repetition and mental drill and those which depend upon insight and capacity for individual exploration. The former can probably be achieved most economically by class methods, but the latter is a matter of growth and can probably never usefully be controlled by the clock.

One other general difficulty of the system was hinted at in many of the interviews with staffs, and frequently emerged in the study of the children's difficulties; it is that the staff are expected to force learning upon the children, thus putting the teacher somewhat in the position of the commercial traveller, trying to make a child sufficiently interested in a special line of goods to make the effort to acquire it. But sometimes, as with the commercial traveller, the door is shut in the teacher's face. In these schools it quite frequently appeared that a mistress was reaping the results of the parents' having persistently tried to force unwanted goods upon the child, so that when the child came to school there was a permanently shut door.

As long as parents are driven by economic circumstances to demand academic examination equipment for their daughters, it is difficult to see how this false relationship can be altered, however derogatory it may be to the dignity of learning and scholarship. One possible way, however, of lessening its falseness has been tried out in some secondary schools and described under the title of the Howard Plan. Here the form as a teaching unit has been abolished and the matter for each subject is divided into half-yearly stages.

The author of the scheme says:

Limitation of the number of subjects taken at a time is essential, lest there be indigestion and non-assimilation.

The desired object, an uncongested time-table, is secured by making the number of stages (nine in most subjects) fewer than the half-years (say eleven to thirteen in most cases) available for taking them. Usually each stage of each subject is offered on the half-yearly *general* Time-Table. A girl chooses the subjects of her *individual* Time-Table each half-year. . . .¹

Under this scheme each girl has a small margin of individual decision, and feels that the lessons she is attending are the ones she herself has chosen, taking into account her own progress and future needs, together with the number of places available in the class. Those who have worked under the scheme maintain that this factor of choice has a very beneficial effect on the atmosphere of the class, and also that the girls develop a greater sense of responsibility in their work. The method no doubt involves a more drastic reorganization than most Head Mistresses would be prepared to undertake, but the scheme is undoubtedly suggestive, even if not generally applicable in detail.

SOME PRACTICAL IMPLICATIONS OF THE PRINCIPLES DISCUSSED

Obviously, those actually engaged in the work of teaching and organizing schools are far more aware of what is practicable and what is not than any outsider can be. The aim of this book is less to offer new practical solutions than to give added weight, through the data presented, to some of the demands for educational progress and reform already being made by those within the schools: as for instance, in the statements of their aims and difficulties recently made by thirteen Head Mistresses,² and particularly their demands for examination reform.

¹ From a leaflet entitled *The Howard Plan of Individual Time-Tables through House Organization*, by M. O'Brien Harris. Copies of this may be obtained from the author, 4 Graham Road, London, E.8. A fuller account of the plan appeared in 1923 as a book entitled *Towards Freedom*, by M. O'Brien Harris, University of London Press.

² *The Head Mistress Speaks*, Kegan Paul, London, 1937.

The following descriptions of what might be done, or is being done in some schools, are intended, therefore, not as rigid procedures to be exactly followed, but as illustrations of the possible ways in which the principles discussed above might be embodied.

I. CONTACTS BETWEEN SCHOOL AND PARENTS

(a) *Private conferences between Head Mistress and parents*

A fair proportion of the Head Mistress's time is already spent in talking to parents, and she is increasingly becoming the parents' confidante in the matter of the child's home environment problems. In fact, she seems at times to be becoming forced more and more into a role akin to that of the psychiatric social worker. Under ideal conditions this social trend would perhaps be accepted as a desirable manifestation, and Head Mistresses would be allowed a 'sabbatical' term or year, near the beginning of their careers as Heads, in which there would be available a course in the methods for dealing with family problems. At present they have to pick up the technical equipment of the social worker and almoner as best they may, since such a course is not yet in existence, and yet they are continually faced with the whole question of how far the home is helping or hindering the girls' emotional growth. It is hoped therefore that the schedule and record card suggested in this book may be found useful as a rough instrument for considering facts of emotional growth, and particularly the question of how far a child is getting adequately varied outlets at home as well as at school.

(b) *Meetings between parents and staff*

The advantages to be gained from parents and staff knowing something about each other's point of view has been recognized in most schools; sometimes there is a Parent-Teacher Association and evening meetings are held, to which an outside speaker is usually invited; sometimes

the meeting is purely social. The general opinion seems to be that the most profitable form of meeting, from the staff's point of view, is the social one which allows staff and parents to get to know each other personally. Some parents probably find lectures on modern educational problems stimulating and useful, but, since it is difficult to apply the general to the particular in such a personal matter as the bringing up of one's children, lectures probably do not take the place of private discussion of particular cases. Further, there might be offered for sale at these meetings the threepenny pamphlets *Concerning Children*,¹ now being published by the University of London Institute of Education and the Home and School Council of Great Britain. Many of these pamphlets deal with the problems of infancy and early childhood, rather than with adolescence, and therefore will be most useful for Junior School parents, where the problems of bringing up a baby brother or sister are often an immediate concern; but even for parents of older children the pamphlets are instructive in that they illustrate the scientific attitude towards problems of growth. Also there is an excellent book entitled *Parents' Questions*,² compiled by The Child Study Association of America, a copy of which might be available for parents to borrow, or kept handy in the room where parents usually wait when they come for interviews with the Head Mistress.³

(c) *Reports to parents*

A summary of the most recent views on school reports is given in pamphlet No. 4 of the *Concerning Children* series.⁴ The traditional form of school report, which is still largely

¹ See Appendix for list of titles.

² Published by Victor Gollancz, Ltd., London, 1936.

³ The following might also be available: the *Home and School Magazine*, 2d. monthly, published at 15 Endsleigh Street, London, W.C.1; *Advances in Understanding the Child*, published 1935, 1s.; *Advances in Understanding the Adolescent*, published 1938, 1s., both compiled by the Home and School Council.

⁴ *School Reports*, by G. R. Swaine, price 3d.

used in these schools, is criticized in this pamphlet. Conversations with parents and children in this experiment confirmed the fact that the traditional form of report is liable to be the source of a rather destructive amount of emotional tension in the home, especially for the non-academic child. Alternative forms are discussed in the pamphlet, but the exact form most suitable for Trust Schools must be a matter for experiment; in any case it should be intimately connected with whatever technique of the Cumulative Record Card is adopted (see below).

2. WAYS OF HELPING GIRLS TO DEAL WITH THEIR PERSONAL EMOTIONAL PROBLEMS

(a) *Sex instruction*

There is abundant evidence that the normal conflicts inherent in growth are greatly increased if there is ignorance of the facts of human reproduction. Under ideal conditions the child's questions on this subject should be answered with complete frankness, whenever she asks them, from the earliest years. In fact, a large number of parents do not do this, and it would undoubtedly be beneficial in these cases for the school to assist in the task, if the girls are to be given their full chance of mental health. It is now agreed that there should be adequate knowledge of the main facts well before the beginning of the menstrual period, since it seems that the whole subject can then be treated by the normal child in a more matter-of-fact spirit, whereas after puberty has begun it becomes increasingly fraught with personal emotions. Introductions to sex information which come after puberty has started are sometimes necessary, but can only be looked upon as emergency courses making up for previous lacks, and it is to be expected that there will always be some girls who will suffer emotional disturbance in accepting information so long delayed. In some schools the facts of reproduction are dealt with as part of the Nature Study course in the Upper II and Lower III year,

and a small book *How a Baby is Born* by K. de Schweinitz,¹ is studied by all the children, unless any parent writes and specially asks that her child may be exempted.

(b) *Dramatic work*

It seems that one of the activities which particularly, at a certain age, provides integrated expression for a number of otherwise conflicting impulses is acting. For it seems, at one and the same time, to give legitimate outlet to the need to receive attention, while also giving a sense of power through controlled movement and emotion, and through the capacity to dominate the audience. The exact percentage of girls that pass through a phase of wanting to go on the stage and the age at which this desire is most common has not yet been worked out, but it was a very frequently mentioned occupational ambition in the girls of from twelve to fourteen.

It may be difficult to arrange that every girl should have the opportunity of taking part in theatrical performance during her school career, but it is certainly very desirable. Acting during lesson-time is often practised amongst the younger forms, but this hardly takes the place of full dramatic performance; for the opportunity of achieving a sense of social function, through being a member of a cast and acting before a real audience, or through being a contributor to scenery and costumes, is invaluable. It seems to be useful for the over-assertive child, by giving her opportunity to express her desire to be important in a socially useful way. It seems also to be useful for the unassertive child, since her greatest difficulty is often dread of the group as a potentially hostile critic; with the protection of costume, and a set part to play, she can sometimes achieve 'reassurance through function', so that her attitude to an audience eventually becomes dominated by common sense rather than irrational phantasies of hostility.

¹ Published by Routledge & Sons, London, 1934.

Some such scheme as yearly dramatic competitions between forms, arranged entirely by the girls themselves, has definite advantages; 'school plays' often seem to involve a disproportionate amount of work for the staff and only provide parts for a limited number of girls. Again, House Dramatic Competitions may throw too much of the work on the older girls.

(c) *A mixed staff*

Amongst those girls whose difficulties in school seemed to originate in emotional problems at home, there were a fair number for whom the problem seemed to centre round the father, or the absence of a father. Sometimes the father was actually absent, either dead or divorced or separated from the mother; sometimes he was only psychologically absent, that is, he was not taking sufficient interest in his daughter to help her develop happily the feminine side of her nature. And sometimes there was too much father, usually in the sense that his daughter's success meant far too much to him, and he was trying to impose his own standards of achievement upon her; but also sometimes in the sense that he was trying to compensate, by a personal relationship with his daughter, for an inadequate relationship with his wife. In either case, the presence of men upon the teaching staff of the school, if they adequately understood their psychological role, would help to balance any difficulties of the father-daughter relationship at home, for if the girl has been stimulated to be too fond of her father she will be able to spread her affections over father-substitutes; if she has become afraid of him, she can learn that all men are not equally terrifying, or if she has no father, she can at least discover some aspects of a father-daughter relationship through those who are *in loco parentis*.

The objection may be raised that the employment of men upon the staff of girls' schools is unfair because it might cause increase of unemployment amongst women; the answer is that the same considerations must surely apply to

boys' schools, and that women on the staff would be equally valuable in helping the boy to become free from excessive emotional attachment to the mother.

(d) *A hobbies period*

Researches in child psychology are tending more and more to emphasize the importance of play as an essential factor in normal growth. Play rooms are being provided in Child Guidance Clinics and a technique of Play Therapy is being widely developed. In this experiment a number of the girls interviewed had no hobbies at all, a few were reported by the parents as being quite incapable of entertaining themselves, and some had hobbies, but no opportunity of practising them. In crowded schools, with overworked staffs, it is difficult at present to see how the school can help in this, but here and there it may be possible to make a beginning. At present the Girl Guide Company, which is sometimes attached to the school, often provides the nearest approach to a play period, although the emphasis on goals and rewards (badges) probably makes the play activities less valuable for purposes of psychological growth. The problem is naturally also bound up with the question of amount of home-work. It has often been pointed out that less home-work might not mean more leisure in the real sense, since there may not be sufficient physical or psychological space in the home for the child to do what she really wants to do. One Head Mistress has suggested that schools should stay open until six o'clock, so that all preparation could be done in school, and the staff also do their corrections in school. If this were done a hobbies time might also be fitted in, although in most schools there will be the difficulty of finding appropriate rooms. Carpentry, for instance, requires space and equipment, but is probably almost as valuable for girls as for boys, as it seems to integrate the violent and attacking impulses into a controlled and constructive activity.

3. FURTHER WAYS OF TAKING INTO ACCOUNT * INDIVIDUAL DIFFERENCES IN ABILITY

(a) *Use of intelligence tests in the entrance examination*

Intelligence tests are beginning to be used, in addition to a scholastic examination, when a new pupil applies for entrance to the school. Theoretically this test-score can be used as a means for diagnosing and rejecting those pupils who are intellectually not of the type to profit by an academic education. In practice, however, many of the schools cannot afford to reject such pupils; owing to various causes, such as shift of population, competition from state-aided secondary schools and private schools, there are times when the school is not full. Also the figures given in Section II, Chapter I, showing the percentage of girls in each school who test lower than any one who has ever yet passed the School Certificate Examination, indicate that if this type of child is rejected there will definitely not be enough prospective pupils to keep the schools full, and this may become increasingly true owing to the falling birth-rate. The alternative to rejection of the less intelligent is the frank acceptance, both of them and their needs. The kind of difficulties which occur when their needs are not catered for has been indicated in connexion with the 'B' form and the 'C' division.

It has always been the declared policy of the Trust to allow for wide individual differences, and there is certainly a social need for schools other than private ones which will offer a sound education to the exceptional child, the child who for some reason does not fit into the standard pattern of educational achievement, and who will therefore often be rejected by the state-aided secondary schools.

(b) *The 'practical' form*

If the numbers in the school are such that the non-academic or backward child can be accepted, then the

problem of catering for her needs arises and bristles with difficulties.

(i) One of the great obstacles to giving these children what they need is the parents' attitude and their belief in the School Certificate. By means of a simple pamphlet, circulated by the school to all prospective parents, it may be possible to modify this attitude to some extent; the pamphlet would explain in everyday language the proved facts about the nature of intellectual ability, and explain that no amount of urging or scolding or other attempt to stimulate will-power will turn an innately non-academic intelligence into one that makes possible the passing of academic examinations. It will explain the school's policy with regard to such children (see below) and try to show the real value of their gifts and the disastrous effects of trying to force academic standards upon them.

(ii) With the help of an intelligence test, together with judgments made by the staff on the basis of school work, suitable girls might perhaps be drafted into a class for practical rather than academic work. The devising of a curriculum for these children can, of course, only come slowly, depending on the particular equipment of each school and the gifts of its present staff. The fact that the work of this group must be mainly practical does not mean that it cannot come into existence until every school has the money for domestic science rooms and workshops. For 'practical' here includes 'social', and this group might take upon itself the arrangement of a great many social activities within the school. It might also study household budgeting, home planning and decoration, and also take upon itself the arrangement of the school dinner menu. Dressmaking classes could include the planning of dress allowance expenditure, and frequent producing of plays would introduce a wide variety of activities. The interest in children and babies which is frequent in this group might be followed up by contacts with local Infant Welfare Clinics and also with the school's own Junior House, while local social conditions

might also be studied, together with Physiology, Hygiene and simple Economics. Many have already seen these possibilities, but at present are hampered most by the parents' attitude. In some of the schools a non-academic class has been most successfully conducted in the Upper V year, since by then it had become quite obvious to all concerned that the girls had no hope of passing an academic examination.

(iii) Although such a system can be outlined ideally, there are many difficulties in forming such a class earlier than the Lower V year. Usually there are not enough children of the definitely non-academic type, in each year, to make a separate class. Also parents¹ and staffs are naturally loath to give up the hope of examination success till the very last minute. This seems to be partly due to the fact that although there are a number of children whom any teacher, with the help of intelligence tests, can quite certainly diagnose as 'non-academic' there are some who are felt to be possibly 'late-developers', children who are 'borderline cases' and who, if put in a class for practical work, may later develop academic ambitions. Actually, the facts about the 'late-developers' are not yet clear, and the concept itself needs to be more clearly defined; at present it is used by staffs sometimes to refer to the child whose intelligence test score shows her to be intelligent, but who has for some reason not yet developed any interest in intellectual experience, and sometimes it is used in

¹ A great difficulty for many of the parents is their failure to understand the distinction between what have been called here intellectual and intuitive activities. In talking to parents whose daughters were far below average scholastically, and with a low intelligence test score, it was quite often very difficult to dissuade them from academic ambitions for their girl. They would say 'We can't understand why she doesn't do well at school, we are sure she's got brains, at home she never misses what's going on, she's so shrewd about people she meets, summing them up in a minute—and she's so quick to learn things in the house.' Actually all the activities they usually mention are such as involve particular situations rather than general ones, and they fail to realize to what a great extent school work requires the capacity to deal with general and abstract relations.

reference to the child whose test scores show her to be a 'borderline case', who might, given favourable conditions and sufficient determination, get through an academic examination, but rather in spite of than because of her intellectual capabilities. The former would probably be restless if placed in a 'practical' class, the latter might or might not, according to her character and the nature of her vocational bent. At present there is a tendency to sacrifice the needs of the obviously non-academic to the possible needs of the 'late-developer', and not to begin the non-examination class lower down in the school than the Upper V, for fear of making some mistakes in classification. Possibly this problem of the 'late-developer' can be somewhat clarified when the distinction between intellectual and emotional development is continually remembered, and the fact taken into account that fairly reliable measures of capacity for academic achievement are available, at any rate for children above the age of four or five; also that the I.Q. is constant, except under very unusual circumstances.

(iv) The further problem of what occupations those who cannot pass the present School Certificate examination are to enter is at present immense. It might eventually be possible to set on foot a movement, among enlightened employers, to agree to waive the academic examination qualification in all jobs that depend more on personal character qualities than on scholastic attainments. On the other hand, there is at present a definite move in the opposite direction in certain quarters, for instance, an attempt that is being made to insist upon academic qualifications for nurses, or for students training to go on the stage. Although this latter policy has obvious points in its favour, it can also be carried too far, and exclude girls of valuable qualities of character and intuition, who are yet unable to manage intellectual tasks. Possibly a way out will be found through the use of examinations of a more practical kind, or through the reform of the present

examination.¹ A worse difficulty at the moment is that many of those girls who are not capable of passing the School Certificate examination also tend to be lacking in the qualities making for practical success. For instance, of the nine girls in a Lower V form judged by the staff as incapable of ever passing the examination six showed themselves to be deficient in such character qualities as initiative, resourcefulness, confidence. Yet these are the qualities specially stressed as essential in those occupations which do not at present require the School Certificate. Since these girls, all of them below the average for secondary schools in test-intelligence, could win no sense of their own significance through their work (especially in a school where marks are read out weekly), and since they were not good at games, they had had no chance for that successful activity which alone forms the basis of initiative and confidence.

¹ The following is a plan put forward by a Head Mistress of one of the Trust schools: 'I would . . . go a step further still, and abolish pass and failure in the examination as a whole. Every candidate should be given a Certificate on which her actual performance in each subject in which she is successful is recorded; grades should be given, perhaps four: Very Good, Good, Credit, Pass. If the word Certificate has acquired a meaning not easily shed, Record or Certified Record might be used temporarily instead. The idea behind school examinations is that they should follow curriculum, and this plan seems to carry on the usual practice of internal examinations. In reports sent home parents can see how girls have acquitted themselves in the various subjects taken, but we do not set up an arbitrary number of five subjects and say that a girl has passed or failed as a whole according to her performance in these five subjects, even if five freely chosen subjects. I see no more reason why she should be judged as a whole at sixteen. A good deal has been made of the convenience of employers. But with the abolition of Matriculation on School Certificate, more with the modification of the Group system, still more with its abolition, employers will be obliged to scrutinize the Certificates offered to them to see if they contain their particular requirements. Such information could equally well be obtained from a Certified Record. The only difference from a school report would be that failures need not be entered, the absence of a subject gives sufficient information to the outside world. This scheme was first put forward by a Chief Inspector and Examinations Secretary of the Central Welsh Board, Mr. W. Edwards, in 1929, and was adopted by the Association of Assistant Mistresses.'—E. R. Gwatkin in *The Head Mistress Speaks*, Kegan Paul, London, 1937.

(c) *The 'B' Form*

Some opinions have already been given of the plan of dividing the bright from the slow children quite low down in the school, making 'A' and 'B' forms which both work upon approximately the same curriculum and syllabus. The other extreme from this is those schools in which there are no 'A' or 'B' forms but the girls work in different divisions for nearly all subjects, so that the form really exists only as a social unit, not as a teaching unit. But even this does not escape the difficulty of the deadening effect of grouping all the slow girls together, although it does minimize the loss of prestige of being in a 'dud' form, for those girls who are in a low division for one subject but in a fairly high one for another. One possible way out is perhaps to develop the 'group method' of teaching, in which bright and less bright children are taught together, but the class is divided into small groups of three or four girls, each group doing different stages of the work. Varieties of this method have occasionally been tried out in these schools, with considerable success.

One general consideration emerging from the problems of the 'B' form is concerned with its title. In some schools what are actually 'A' and 'B' forms are not so called, but are given some such non-significant titles as the numbers of their form rooms. Although the girls themselves are not deceived by this device it does probably have certain advantages in that it may prevent over-ambitious parents and critical relations from taunting the child with her lack of academic achievement. On the other hand, this attempt to slur over the differences between 'A' and 'B' work has certain psychological disadvantages, since it is a commonplace of both psychological and worldly wisdom that it is essential to face one's own limitations squarely. It is doubtful how far the child in the 'B' form is being helped to do this, or being helped to find her real social function in relation to the bright ones. Neither feelings of inferiority, nor of superiority as indicated by the remark—"I have a

contempt for brainy people,' are very useful, and certainly much of the present procedure in some schools unnecessarily widens and over-emphasizes the popular distinction between 'high-brow' and 'low-brow'.

(d) '*Consultations*'

In many of the schools there is an arrangement by which each subject-mistress sets aside a certain afternoon period each week in which she will be available to help individual girls with any special difficulty, or help them catch up with any work that they may have missed. These consultations are made by appointment, sometimes at the girl's own request, sometimes at the suggestion of the mistress. The arrangement seems to work admirably and fulfil a great need, although the Mathematics mistresses often have more appointments than can be fitted in in the time available, while the History and English mistresses find that consultations are rarely needed.

4. WAYS OF ASSISTING DISCIPLINE AND CONCENTRATION

(a) *Training in the art of discussion*

Much has been said in these pages about the intimate connexion between the problems of lack of concentration and the problems of emotional satisfactions and deprivations, together with lack of an early establishment of routines and ordered life. It has been pointed out that the capacity to concentrate voluntarily upon a given train of thought seems also to be the product of social contacts with equals, since through the necessity to express her wishes in words and give effective reasons for them if they are challenged, a child learns to recognize the existence of thoughts and wishes that are different from her own. Until she has done this she apparently cannot be aware of thought as a subjective process, and so cannot concentrate silently, she can only attend to a problem that she can pursue actively, i.e. by talking or movement. This is, I think, one

reason why the children are continually breaking whatever rules of silence are imposed, for many of them are still in that stage of immaturity in which they can only think by talking, and if they may not talk they cannot think. A possible method for reducing the amount of disturbing chatter might be, not silence rules, but formal training in the art of conversation.

I suggest that this should be begun by a training in committee procedure. In one of the Trust Schools I found the Lower III already doing this; a 'news-meeting' was held weekly, with all the formalities of a business meeting, one of the children being in the chair and a mistress in the background in an advisory capacity. I also found this method used in an English class choosing a cast for a play. On theoretical grounds it appears that this is the right age for beginning the learning of these formalities, as it is the age at which there is the greatest interest in rules for their own sake. I suggest that this type of meeting be carried on right up the school for the express purpose of learning the technique of group discussion. It differs fundamentally from the debating society in that its purpose is to develop, not competitive thinking, but co-operative thinking. The subject matter for discussion might be taken from various aspects of life which concern the children directly, such as from leisure interests, or from practical problems concerned with the running of the school. In every case the aim should be to teach the meaning of opinion, judgment and the relation of these to the facts; particular emphasis would be laid upon point of view, and the dependence of this upon the circumstances of the individual. The aim would be to teach reflection upon the real day-to-day problems of living together. Because such problems are essentially concerned with the clash of emotional attitude, the discussions, in order to be fruitful, would probably involve a freer expression of opinion than is at present allowed. Experience in certain experimental schools seems to have shown, however, that freedom of speech, even if it sometimes involve

personal criticism of the staff, need not be incompatible with loyalty in action; and its advantages, in developing capacity to deal reflectively with one's own grievances, have apparently been found to outweigh any initial shock to ideas of the dignity of the staff.

It should not be impossibly difficult to fit such a meeting into the time-table, for some Trust Schools already have a 'Form-Time' of twenty or thirty minutes weekly, which the form mistress can use in whatever way she considers best for the form.

The nearest approach to the discussion class found in the schools visited was the Form Committee and School Committee. These were planned for the discussion of discipline and other similar problems and they were not considered by the majority of the staff and girls concerned to be a great success. I could not, however, find that there had been any actual training in the technique of discussion; the aim of the meetings was rather to achieve a solution of some problem—such as that of reducing noise—than to study the method by which solutions can be achieved. Also the Form Committee meetings were usually held at the end of the morning after the bell had rung for the rest of the form to go home.

Since women in this country have usually very little training in group discussion, it may be that members of the staff who were sufficiently interested to undertake such an experiment would have to move side by side with their classes in discovering the techniques of co-operative thinking; but this would not necessarily prevent success.

The results to be hoped for from such an experiment would be as follows:

(i) A greater capacity to see other people's points of view and therefore less evading of rules that are made for other people's convenience.

(ii) A chance for every one to feel that she counts for something in the community, since she finds that everybody's point of view is duly considered, and yet that what

she wants is not everything. This should be a stabilizing influence both on those children who have everything they want at home and on those who feel that they have nothing that they want.

(iii) Possibly there would also be greater independence of work in all subjects that require reflective thinking, particularly if the discoveries made in the discussion class about opinion and judgment were generalized and their various possible applications pointed out.

(b) More Cultural Individuality amongst the Houses

The continual slight friction caused by the presence in the school of girls who have not accepted the discipline of work and of school life, even after five or six years spent in the school environment, is a problem that has wide sociological implications, some of which I have attempted to indicate in the preceding chapters. They may be summarized in the statement that owing to those rapid sociological changes of the last fifty years or so that can be briefly summarized under the phrase 'breakdown of tradition', the schools are being asked to perform a task that has never been asked of them before. For the school's ostensible and main task of turning an illiterate child into a literate adult depended on certain assumptions as to the nature and stability of the home. These assumptions can no longer be made, since the basis of emotional security upon which the capacity for voluntary effort depends can no longer be taken for granted. This means that the old methods of stimulating effort by command and exhortation are no longer effective in what seems to be an increasingly large number of children. Sociological research is showing more and more that it is through the feeling of belonging somewhere, and through desire for approval from the group we belong to,¹ that capacity for effort and understanding grows. It is showing that these group solidarities tend to grow

¹ The 'group we belong to' does not necessarily mean our immediate neighbours, it may be composed of people that we hardly ever see; for 'doing things together' does not necessarily mean physically together.

spontaneously in all spheres of life, and that where conditions prevent them, the individual suffers. In these schools this truth is partly recognized, and finds expression in the fostering of the team spirit in games, House competitions and so on. Usually, however, the membership of such groups is determined by authority, rather than by natural affinities and loyalties. For instance, the members of the Houses are chosen by lot, the members of forms are chosen by age and ability, and, where the forms are parallel, again by lot; though it is true that there are in most of the schools societies or clubs, where membership is voluntary, and the grouping therefore more spontaneous.

It is possible that more constructive use might be made of this tendency to form spontaneous groups, by means of the existing organization into Houses. At present a girl has to remain in the House to which she was allotted, for the whole of her school life, regardless of where her friends may be. It is worth considering, however, whether the Houses might not be encouraged to develop on freer lines, each coming to have a cultural individuality of its own, and membership being to some extent a matter of choice.

More cultural individuality between the Houses, possibly determined by work of a 'project'¹ nature, might make possible more constructive contacts between the different ages, for a number of girls who came from small families said they felt the need to mix more with girls either younger or older than themselves. It might also make more opportunities for varieties of social functions, for each girl to find something that she can do that matters both according to her own scheme of values and is at the same time important to some group of her fellows.

(c) *Privileges of Citizenship*

The comment was often made by prefects and sometimes

¹ Something of this kind is already being undertaken, in some Trust Schools, but by the forms rather than by the Houses. Every year each form makes some kind of toy for the school charity.

by staff, referring to children who persistently interfered with others by disturbing noise, general unruliness and lack of co-operation: 'There is really nothing you can do about it.' The only punishment in general use is the 'detention', but this means that a mistress is also penalized, for she has to stay late to see that the child actually carries out the task imposed. It is worth considering whether more positive inducements towards co-operative behaviour might not be developed. For instance, House membership might perhaps be of two kinds, children when they first join might become associate members, or minors; then, after a suitable period, they might be elected to full citizenship by the other citizens of their House, provided that they have proved themselves worthy of the honour. Citizenship itself might involve certain activity privileges, such as perhaps more unsupervised work periods, wider use of the library, attendance at House entertainments, and so on.¹

(d) Two Form Leaders in each Form

The practice is followed in some schools of having two form leaders in each form, one elected by the girls and the other chosen by the form mistress, the girls themselves not being told which of the two is the elected leader. If discreetly managed this system seems to work well and has the great advantage of allowing girls who need the stimulus of responsibility and official social function to be given it.

¹ A system of this kind has been worked out in a private school, and described, together with other devices, in a pamphlet entitled 'Self-Government in Schools', by Geraldine Coster, published Basil Blackwell, Oxford, 1923. The method is said to be preferable to the prefect system. For instance, it is reported by a tutor at a certain university that the students are showing a marked tendency to avoid responsibility, saying: 'We had too much of that at school.' Certainly in the schools seen the prefect system stresses one particular kind of social function, that which involves responsibility for controlling the behaviour of others. In a citizenship scheme it is the responsibility for one's own behaviour, and its usefulness as an individual contribution to some common aim, that is more emphasized.

5. WAYS OF REDUCING FATIGUE AND RUSH FOR THE STAFF

(a) *Recognition of the Intellectual Limitations of the Non-academic Child*

Part of the strain of teaching in these schools seems to be due to the persistent and heroic attempts to make, intellectually, silk purses out of sows' ears. As far as the facts so far obtained indicate, it seems that at least 10 per cent of the children can never hope to reach really satisfactory results in work, either for themselves or their teachers, under the present curriculum. In nearly all the schools visited there were also one or two girls interviewed who, though not technically mentally deficient, were so intellectually dull as to find all the scholastic subjects hopelessly beyond them, being even far below the standard for the 'C' divisions. Apart from the question of whether these girls should ever be accepted in the school there is the question of what to do with those who are already there. Ideally, they should be transferred to a small school where practical work and constant individual attention are possible. In fact, a suitable school is rarely available in the neighbourhood and the parents are often unwilling or cannot afford to send the child away to a boarding school. Also in some cases the girl herself has made a good social adjustment in the school, perhaps for the first time in her life, and gains much from the social and athletic side of school life. Further, it is often the parents' dearest wish that their child should attend the High School, and they cannot be persuaded to forego its social advantages.

Bearing these facts in mind, a compromise was suggested in several schools, which, though not ideal, would have definite advantages over the previous plan of leaving these girls to 'sink or swim' with the ordinary work of the form. The compromise was a special individual time-table for each of them, together with a special method of marking. Up to now their work has generally been marked against

the general standard for the form, with the result that they continually received the mark of 'failed' or its equivalent.

It was suggested instead that a system of 'progress marking' should be used for these girls, and also possibly for some of the duller girls in the ordinary 'B' forms. Only those who have some hope of reaching the School Certificate standard should have their work marked according to that standard. For those who are to take the examination, some idea of their achievement in relation to outside standards is useful, for themselves and their parents and their teachers; for the intellectually handicapped child it is far more important that she should receive due acknowledgment of any effort she makes, even though her best be very bad according to the general standard. Both for her own sake and her teacher's, she should not be made to feel as many of them said they did, 'When I do try it doesn't seem to make any difference.'

(b) Abolition of Numerical Marking

It is an obvious economy for highly paid technical specialists to do the minimum of routine clerical work. In some of the schools the making of marks lists takes a disproportionate amount of time when their value as an indication of progress is considered in relation to the following facts:

(i) Several parents mentioned, quite incidentally, that it is a recognized practice for girls to help each other over the telephone while doing their preparation. One parent, when defending her daughter against the charge of 'selfishness' made by the staff, said: 'Of course she's not selfish. Why, the other girls are continually ringing her up to ask for help with their preparation!'

(ii) It has already been mentioned that, although a maximum time is given for each piece of preparation, the girls and parents reported that these are very rarely adhered

to, the conscientious and anxious girls often spending far longer.

Some mark or grade to indicate the quality of work done is difficult to dispense with. In the light of the above facts, however, it is impossible to ensure that these marks mean what they are intended to mean, therefore any detailed comparison of them not only takes time that might be more valuably employed but also gives a result that is unreliable.

Some routine clerical work is essential; the cost of providing adequate secretarial staff to lighten the clerical duties of the teaching staff might be considered against the cost of absence due to illness, which seems to be often a direct result of the sense of rush.

(c) *Economy of Time and Energy spent in Friction with Difficult Girls*

It has been suggested in the main part of this book that much of the time now spent in exhortation is fruitless; and that the same amount of time given to the attempt to understand what is happening would, very often, make it possible for difficult girls to become co-operative rather than passively or actively resistant. It seems also to be true that very often it is not necessary to *do* anything, in the way of special measures; the implicit change in relationship that results when the adult is sympathetically aware of the child's difficulties is in itself sufficient.

(d) *Economy of Ambition*

From time to time in all the schools different members of the staff were heard to complain that they did not have enough lessons per week in their particular subject; actually the mistress who was most insistent in this point was the one who showed greatest signs of nervous exhaustion. Possibly one of the factors determining this attitude has to do with modern conditions of specialized training in the teaching profession. It seemed probable that many mistresses had brought with them into the school the same

standard of achievement that they had acquired in their years at the University. They seemed to be continually striving after a standard of work that was quite inappropriately high for girls who have six or seven subjects to study, instead of only one or two. Some attempt to scrutinize their own standards and find out whether they are in fact appropriate to the situation might lessen the amount of fatigue that is produced by what Durkheim has called 'the futility of endless pursuit'.

(e) *Ways of Helping the Girls to Learn more Independence in Work*

Some experiments in 'free-study' periods have already been tried, such as once a week in all forms, and others are being developed. Several girls mentioned the difficulty of adjusting to the freer conditions of Sixth Form work after the comparative 'spoon-feeding' that they had received up to the Upper Fifth year. But many mistresses are taking practical steps towards developing class teaching away from the lecture method, and towards making the children active contributors rather than passive spectators.¹ Many report that although at first this change requires more work from the staff the gain in the attitude of the children does in the end make the mistresses work easier.

6. WAYS OF PROMOTING EDUCATIONAL AND VOCATIONAL GUIDANCE

(a) *The Cumulative Record Card*

Some of the schools are beginning to keep record cards showing each girl's progress. Both in America and England the use of the record card is spreading; in many instances it is being used as a method of crystallizing that point of view which sees each child as a dynamic whole. Sample record cards and their uses are fully described in the small book already mentioned, *The Educational Guidance*

¹ Various methods are described in *Experiments in Educational Self-government*, by A. L. Gordon Mackay, London, 1931.

of the School Child, though the writers emphasize that the scheme outlined in it is only a beginning, and that it must inevitably develop slowly. Since this book should be in every school I will not give their conclusions as regards method, other than that they agree that the card should contain cumulative information about the child's home circumstances, physical condition, general intelligence and special abilities, temperament, personality, interests and school attainments in a wide sense. The following quotation will perhaps suffice to indicate their views on the general position:

There is a widespread and growing discontent with examinations as a preponderating factor in educational selection and guidance. The influence exercised by examinations in determining the future of children and young people at crucial points in their careers is enormous, yet the experience of teachers and the results of research alike have somewhat shaken our faith in their efficacy by themselves. The solution of the difficulty has not been found, and will be found only after much experiment and research. There is, however, a growing conviction among teachers, administrators, psychologists and others that whatever the solution, a big part must be played in it by cumulative records of the pupils. It is becoming more generally recognized that the people who have as a rule had the best chance of assessing the abilities and promise of the pupil are the teachers who have been in contact with him over a period of years. This direct contact with the child in circumstances favourable to the revealing of mental capacity has built up a fund of knowledge about each child upon which it would be foolish not to draw. If this knowledge has been systematically gleaned and objectively recorded over a period of years by means of a cumulative pupil's record, the result should, it is felt, be an indispensable supplement to the necessary examinations. Recent thought seems to be moving to this conclusion.

The exact form of record card most suitable for use in Trust Schools is a matter for further experiment, and work

is being carried out in this direction on the basis of the provisional form shown in the Appendix.

One difficulty was frequently raised by Head Mistresses. It is the general opinion of those who have studied the question of record cards that the child's needs cannot be understood without some knowledge of the special circumstances of her home life; under this heading are listed such factors as any peculiarity in the attitude of other members of the family towards the child, or any events in the history of the child or her family which are likely considerably to have affected her development. Amongst the children studied in the Trust Schools ample evidence was found of the value of taking into account such factors as these in any attempt to remedy difficulties of behaviour. Many of the Head Mistresses felt, however, that these facts were of too intimate a nature to be known by the staff in general, for they might lead to damaging gossip. Hence they felt strongly that such facts should not be in any way recorded, but should be known only by the Head Mistress or confided to individual members of the staff only at her discretion.

Experience in this experiment, however, showed that this system, although undoubtedly useful in that it safeguards the confidences of parents, does often mean that various members of the staff remain in ignorance of vitally important facts which should be influencing their treatment of individual children. Possibly a way out of the dilemma would be to keep as full records of home circumstances as possible, but at the same time to let it be understood that, as a matter of professional honour, no information obtained in this way should be made the subject of casual staff-room gossip. In any case, the child's name would not be written on the card, but only a code number, and the records would naturally be kept locked up.

Another difficulty raised by the Head Mistresses was the fear that the use of the record card would lead to a child's misdeeds being remembered against her. I think the answer to this grows out of what has been said here about

the point of view that is brought about by psychological studies; what it is important to know about a child is more the broad circumstances of her life and the trends of her personality, rather than isolated symptoms of difficult behaviour. Thus it would not be necessary to enter on the record card the fact of a child being caught stealing or cheating, although it would be necessary to make a note of whatever circumstances of strain at home or at school could be discovered as associated with the anti-social behaviour.

(b) *Medical Examinations and Record Cards*

At present a medical examination is given, at the school's expense, to all children on entering the school. Some of the school doctors report the need for a follow-up examination to find out whether the measures recommended have actually been carried out, and also for a second routine examination at a later date. It is also important that the date of the beginning of the menstrual period should be supplied by the parents and filled in on the medical record card, for at present there is no certain information on this point in many of the schools.

(c) *The School Leaving Record*

A certificate is already given to all girls leaving from the higher forms, which shows the examinations passed, details of subjects taken in school, offices held, games and other school activities. On the basis of the cumulative record card this might be developed to include a description of qualities of temperament and personality which would be useful as a guide to employment agencies and employers.

(d) *Careers Mistress*

The work of the Careers Mistress is usually taken to include responsibility for record-keeping and testing, for collecting and making available information about openings, and also to include periodical interviews with the

girls. There has been some feeling amongst the Head Mistresses that the appointment of a careers mistress is unnecessary, since the Head Mistress has in the past been herself undertaking this work. Also they feel that since the Head Mistress sees the parents in the ordinary course of her work, she is the best person to carry out vocational advising. However, vocational guidance techniques have been developing so fast that it is becoming more and more doubtful how far the Head Mistress can find time to make full use of them in addition to her other activities. Probably a division of duties is the most workable solution, the careers mistress being responsible for the more technical side of the work, but the Head Mistress undertaking, as before, the necessary discussions with parents.

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This study of some possible applications of psychological methods in schools is of necessity a mere scratching of the surface of an immense field. This book was primarily written in order that the staffs of the schools who participated in the experiment might have some idea of the progress of the investigation. It has only been possible in the time available to bring together the bare outlines of the problems raised by the Head Mistresses, the staffs and the girls, but it is hoped that the account may at least stimulate interest in the field and suggest lines for further study and experiment.

APPENDIX I

TOTAL SITUATION RECORD CARD

The following is a modification of the record card suggested in *The Educational Guidance of the School Child*, intended for use with girls who are showing any special difficulties. In schools where the complete adoption of the record card system is not yet possible, this form might be used in special circumstances and by any member of the staff who wished to look for further light upon a particular child's difficulty. The modifications are three-fold:

(i) An attempt has been made to arrange the headings so that they emphasize the dynamic interplay of different factors in the child's total situation.

(ii) A classification of individual differences in temperament has been attempted along the lines of the Interests Chart described in this book.

(iii) Instead of the judgments being recorded in the form of a rating scale, as in the staff's report on school adjustment used in the beginning of this experiment, the method of underlining and crossing out descriptive adjectives or phrases has been used. This change was made because it was found that the underlining method, although less accurate for fine distinctions, was more graphic and therefore quicker to use and interpret.

A separate sheet of Form B might be filled up by any member of the staff who was interested, while Form A would probably be most conveniently filled up by the Head Mistress or careers mistress. Form C can be filled up by the girl herself; this form is intended partly as a source of information for those who are responsible for guiding her education, partly as an exercise and stimulus for the girl herself, by inducing reflective consideration of her own bent and ambitions. The forms as shown here are filled in for a sample case, Mary Jones, the remarks shown in *italics* being the observations contributed by the mistress who fills up the form.

TOTAL SITUATION RECORD CARD

(Experimental Form)

School. *Xworth High School.*Form. *Upper V.*Total Attendance *320/372 days.*Age on July 31st, 1936. *15.1.*Average Age of Form. *15.10.*Date of Entry to School, *Sept., 1934.*

Underline or cross out any of the descriptions which particularly apply or do not apply; underline 'f' or 'm' according to whether the description applies to father or mother or both.

FACTORS RELEVANT TO THE ESTABLISHING OF APPROPRIATE BODILY,
EMOTIONAL AND MENTAL RESPONSES

I. THE HOME

(a) PARENTS' EXAMPLE

Father's Occupation. *Insurance Clerk.*Mother's Occupation (present). *None.*" " (previous to marriage). *Hospital Nurse.*Special Interests or Gifts; Father. *Sport.*

" " Mother. . . .

" " Near Relations. . . .

(b) PARENTS' OUTLOOK AND MOOD

Intellectual f., m. Cultured f., m. Hard-working f., m. Uneducated f., m. Worldly f., m. Frivolous f., m. Socially ambitious f., m. Go-getting f., m. Happy-go-lucky f., m. Erratic f., m., etc. *F. reported as 'neurasthenic' since three years' war service. M. very over-burdened.*

(c) PARENTS' ATTITUDE TO CHILD

Encouraging f., m. Understanding f., m. Severe f., m. Critical f., m. Ambitious f., m. Nagging f., m. Domineering f., m. Possessive f., m. Indulgent f., m. Over-anxious f., m. *M. admits that she always wanted to 'keep the children to herself'.*

(d) COMPANIONSHIP OF EQUALS

Position in family. *Eldest.*

Age of brothers, 8.

Age of sisters, 11.

Week-end arrangements.

School or Occupation. *Elementary School.*Along with parents. *Has own play-room or equivalent.*Sees own friends. *Has to share bedroom with sister. F. so nervy that other children never asked to the house. She wants a bicycle in order to go out with her friends, parents will not allow it.*

Holiday arrangements.

Continually with other children. *Has friends to stay. Stays with friends. Goes into the country. Usually alone. Travels with parents. Family all go to the sea in summer, otherwise stay at home.*

(e) RELATION TO BROTHERS AND SISTERS

Great friends with . . . year-old.

Continually quarrels with 11 year-old.

Markedly jealous of 11 year-old.

(f) RELATION TO FATHER

~~Great friends.~~ Very little contact. Occasional rows. Continual friction.

RELATION TO MOTHER

Very devoted. Very dependent. Good friends. Liable to outbursts. Rude. Antagonistic. Dis-obedient. Secretive. Mother says she is 'brazen'.

(g) PAST CIRCUMSTANCES

Major changes of background (such as of country, neighbourhood, school, etc. Give dates in terms of child's age). *Four changes of school before the age of 11, owing to father's work.*
Special crises, difficulties or disasters. *The first three years of her life the family were living in lodgings, with continued friction over noise, etc.*

(h) PRESENT CIRCUMSTANCES

Any special conditions in home life.

Mother says that younger daughter is the apple of her father's eye, has a placid easy-going temperament, and is great friends with the boy, so that S. is very 'out of it'.

II. PHYSICAL CONDITION AND PAST HISTORY

Serious illnesses. *Whooping Cough.* Length of absence. . . . Age 2½ Form. . . .
 " *Pneumonia.* " " 6 weeks. " 8 " ?
 General health in childhood. *Good, but always needed careful feeding.*
 School Doctor's Report. *Physique good.* Date *Nov., 1934.*
 Form Mistress's observations. *Easily tired, overgrown, round-shouldered.*
 Beginning of menstruation. *Age 13.*
 Amount of sex instruction: All questions answered when asked. Full information given at age. . .
 Partial information given at age 13. No questions answered at home. No information given.

III. GENERAL ABILITY AND SPECIAL GIFTS

(a) GENERAL INTELLIGENCE: as estimated by staff: A B C D E
 as measured by tests:—

TEST	DATE	MENTAL AGE	I.B. or I.Q.	AVERAGE FOR FORM	REMARKS
OTIS Advanced Form A	8/3/37	—	I.B. 160 (American norms)	I.B. 148	I.B. judged 'too high' by the Maths. mistress
(b) STRONG AND WEAK POINTS IN SPECIAL ABILITIES					
<i>Imaginative, vocabulary very good, Drawing excellent, Mathematics weak</i>					

IV. TYPE OF SCHOOL COURSE ATTEMPTED AND AMOUNT OF SUCCESS ACHIEVED

Examinations in view:

School Certificate.	Date <i>July, 1937.</i>	Result.
University Entrance	"	"
University Scholarship	"	"

ATTAINMENTS. Number in class *28.*

SUBJECT	RATING	POSITION IN CLASS	REMARKS	EXAMINATION RESULTS
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Essays very good

English	A			
History	B			
Geography	B			
French	C			
Latin	D			
Mathematics	D			
Biology	B			
Art	A			
Music	—			

Very erratic and lacking in confidence

V. GENERAL BENT AND INTERESTS

(SUMMARIES FROM STAFF'S REPORTS, FORM B, AND GIRL'S INTERESTS SHEET, FORM C, ETC.)

INWARD TURNING

DEVELOPMENT OF KNOWING

(a) IN GENERAL TERMS

OUTWARD TURNING

Reflective implicit thinking.

Sometimes produces really thoughtful work in History and English.

Concentrated logical thinking.

Mathematics and Latin weak. Says she hates 'reasoning'. Often cannot concentrate to order.

(b) IN PARTICULAR TERMS

Intuitive awareness of inner life.
Shows signs of a rich imaginative life which sometimes appears in her drawings, but all expression is difficult for her.

DEVELOPMENT OF EMOTION

Submissive relations.

Is very receptive and amenable with any one she trusts, but apparently does not feel secure with any one in her home.

Intuitive awareness of surroundings
Usually too gauche and ill-at-ease to be socially on the spot.

Assertive relations.

Is sometimes assertive, but it seems to be more a cover for anxiety than enjoyment of power. Was not a good form leader.

DEVELOPMENT OF BODILY EXPERIENCE

Capacity for sensory enjoyments.

Very sensitive to colour and form. Enjoys being lazy.

Active and athletic pleasures.

Says she dislikes team games but enjoys walking, bicycling, swimming.

VI. ASSETS AND INTEGRATIVE ACTIVITIES

(a) INTELLECTUAL:

Test intelligence $\left\{ \begin{array}{l} \text{well above average} \\ \text{above average} \\ \text{average} \end{array} \right\}$ *for this school.*

Habits of thought: Can deal reflectively with ideas if given plenty of time.

Habits of work: Hard-working, persistent. Usually.

Certificates, scholarships, distinctions won. Inter-schools Essay Prize.

(b) INTUITIVE:

Capacity for expression { Linguistic (own, foreign, conversational, written language).
Dramatic (dancing, acting, elocution).
Musical (singing, instrument.) *Wants to learn piano.*

Artistic (painting, life drawing, imaginative drawing, design, modelling).
creative, interpretative.

Bias of expression:

Purposiveness and self-direction: Generally knows what she wants. Can discuss reflectively her own personal problems.

Capacity for appreciation: Literature, poetry, plays, ballet, films, paintings, architecture. *Has reflective opinions about the films she has seen.*

(c) EMOTIONAL

Attitude to superiors: Amenable, co-operative, frank.

" equals: Friendly, open, co-operative, willing to lead, willing to be led.

" inferiors: Protective, maternal, considerate, willing to lead.

Friendships: Many friends, one special friend, friends older than herself, friends younger, boy friends.

Unofficial social functions: Popular, leader of her 'set', leader in mischief, buffoon. *Rather apart and solitary.*

Official social functions (record of offices held, with dates). *Form leader, September 1937. Was too vague, absent-minded, and afraid to assert herself.*

Team membership. *Keen member of science club.*

Leisure pursuits involving social contacts. *Wants to learn ballroom dancing. Could go out with friends more if she had a bicycle.*

Interest in dress and appearance. *Used to take a pride in being 'hoydenish'. Now wants to study dress designing.*

(d) PHYSICAL

1. Leisure pursuits:

Practical and domestic: Cooking, needlework, dressmaking, gardening, carpentry.

Maternal: Looking after children, looking after animals.

Exploring and collecting: Photography, collecting.

Athletic: Tennis, riding, walking, swimming, skating, bicycling.

2. Entertainment: Films. *Has strong views about the films she wants to see but parents often will not let her go to them.*

Wireless.

3. Physique and appearance. *Can look nice but has little encouragement at home.*

WAYS IN WHICH HER DIFFICULTIES ARE EXPRESSED

Lacks faith in herself.

Shy, seems unhappy and depressed.

Sometimes seems to anticipate fault-finding by aggressiveness.

REMEDIAL MEASURES PROPOSED

Persuade parents to let her have a bicycle so that she can go out with her friends.

Try to arrange holiday tour or camp so that she does not spend so much time at home.

Should have a part in a play and opportunity to help with the dress designing.

Essential that whatever training she takes, she should live away from home. This is difficult financially, but possibly she might live with relations in London.

Needs some special consultation periods in Mathematics.

(Signed) A. B. Smith (Head Mistress)

(Date) 20/3/37

RESULTS

STAFF REPORT
(Experimental Form)

Girl's Name *Mary Jones*
 Form *Up. V*
 Age *15.9*

TOTAL SITUATION RECORD CARD 305

CHARACTERISTIC ATTITUDES

Underline any qualities markedly shown; cross out any in which she seems conspicuously lacking.

INWARD TURNING

OUTWARD TURNING

INTELLECTUAL

EXTREME
vague
'woolly'
credulous
erratic concentration

NORMAL
reflective
constructive
sometimes original

NORMAL
 analytic
 methodical
 critical
 controlled concentration

EXTREME
argumentative (at home)
hair-splitting criticism
 obsessive doubts

INTUITIVE

alert to inner life
 sensitively expressive
 imaginatively creative
 contemplative
can enjoy being alone

~~alert to surroundings~~
 dramatically expressive
 humorous, witty
 sympathetic
~~shows savoir-faire~~

over-excitable
 impulsive
 restless need for novelty
 incapable of being alone
 superficial
 talks too much

EMOTIONAL

anxious	able to submit	takes an active part in class aggressive (<i>sometimes</i>)
bashful	<u>suggestible</u>	interfering
over-retiring	a good listener	bullying
<u>withdrawn</u>	quiet	rude
<u>depressed</u>	serious	<u>disobedient</u> (<i>only at</i>
afraid of action	can accept dependence	<u>home</u>)
examination panic	likes to be 'at one with	resents correction
fear of being conspicuous	others'	fear of inaction
over-dependent	co-operative	likes to be conspicuous

PHYSICAL

indolent	appreciates sensory ex-	noisy
too comfort loving	perience	must always be doing
	can enjoy doing nothing	something
		cannot sit still
		rowdy

Name of Mistress .. A. B. Smith
 Subject taught English
 Date 8/3/37

FORM C.

INTEREST RECORD
(Experimental Form)

Name *Mary Jones*
 Form *Up. V.*
 Age *15.9*
 Date *10/3/37*

If you particularly enjoy any of the things mentioned below, underline them. Also cross out any which you dislike very much.
 If there are any which you think you would like or dislike very much although you have never tried them put (?) after your underlining or crossing out.

SCHOOL SUBJECTS

English composition
~~Scripture~~

History
English literature

English grammar
 Latin
 Greek
Biology

Physics
 Chemistry
 French
 German

Algebra
 Geometry
~~Arithmetic~~

Music (theory)
 Music (instrumental)
 Elocution
 Eurythmics
 Gymnastics

Painting
Drawing (imaginative)
 (design)
 (from life)

Singing
 Dancing?

Needlework Handwork Cooking

Prizes or Certificates

SCHOOL ACTIVITIES

School prayers	Club meetings <u>Recreation and lunch</u> hour Watching matches:	Lectures Concerts <u>Form Time</u> House meetings School parties <u>Guide meetings ?</u> <u>Cricket</u> Tennis Hockey Swimming <u>Netball</u> Laerese	Debates Acting Competitions Being a prefect ? Being a form leader Organising a party
----------------	---	---	---

Team membership *None*
 Club membership *Science Club*
 Offices held in school *Form leader, Sept. 1937*

READING

Poetry	Essays	Biographies	Scientific books
Myths and legends	Historical novels	Travel books	Encyclopaedias
Fairy stories	Classical novels	History	Detective stories
	Novels (modern)	Animal books	Adventure stories
	School stories		

Others:

CINEMAS AND THEATRES

TragediesHistorical
Romantic
Love-storiesDetective
Gangster
FarcesDocumentary
Travel
Nature
Comic cartoons

Others:

LISTENING TO THE WIRELESS

Classical musicPlaysDebates
Talks
Jazz
Variety

Others:

OTHER SPARE TIME ENJOYMENTS

Being alone
Peace and quiet
Old buildings
Being in church

Writing stories

~~Writing poetry~~

Writing plays

Drawing from imaginationDrawing from life

Clay modelling

~~Playing bridge~~~~Playing cards~~

Cross word puzzles

Acting

Playing the piano ?

(or other instrument)

Singing

<u>Day-dreaming</u>	Going out with a group of friends	Club meetings
<u>Lying in the sun</u>	Going out with one friend	Parties
<u>Being lazy</u>	Going out with your parents	<u>Dances</u>
<u>Doing nothing</u>	Going out with your dog	
	Looking after babies	
	Looking after people who are ill	
	Looking after children	
	<u>Looking after animals</u>	
<u>Dressmaking</u>	<u>Cooking</u>	Tennis
<u>Knitting</u>		
<u>Needlework</u>		
<u>Gardening</u>		
<u>Handicrafts</u> (.....)		
<u>Housekeeping</u>	<u>Walking</u>	Golf
<u>Camping ?</u>	<u>Cycling</u>	Swimming
		Riding
		Exploring birds or animals
		Collecting
Remarks		

VOCATIONAL PLANS. (If you are considering several occupations, try to put them in order of preference.)

Art school

APPENDIX II

LIST OF PICTURE POSTCARDS

Acrobat suspended by her Teeth.	Coloured reproduction of Degas' 'Miss Lola at the Cirque Fernando', National Gallery, Millbank.
Airwoman.	Photograph cut out of a magazine, showing a woman pilot in the cockpit of an aeroplane.
Almshouse Garden.	Uncoloured reproduction of Walker's 'The Harbour of Refuge', National Gallery, Millbank.
Ambassador.	Coloured postcard of the Great Mogul receiving the English Ambassador. Raphael Tuck and Sons, No. 9147.
Ballet Dancer.	Coloured reproduction of a picture by E. Oppler of a ballet dancer poised on her toes.
Blind Man's Buff.	Uncoloured reproduction of Wilkie's picture, National Gallery.
Boy and Girl.	A 'still' from the Hungarian film 'Young Love'; it looks as though the boy and girl are 'hiking' together.
Boy lying in the Sun.	Coloured reproduction of Lenbach's 'Der Hirtenknabe'.
Boy watering Horses.	Uncoloured reproduction of Mauve's 'Watering Horses', National Gallery, Millbank.
Bride and Pages.	Photograph cut out of a fashionable magazine.
Child riding on Cow.	Photograph of country scene.
Children drawing.	Photograph of children at work in a studio.
Death of Arthur.	Uncoloured reproduction of 'Morte d'Arthur' by Archer, National Gallery, Millbank.

Dying Child.	Uncoloured reproduction of 'Man with the Scythe' by La Thanque, National Gallery, Millbank.
Feeding Penguins.	Photograph published by the Zoological Society of London.
Firemen at Work.	Photograph from the Rotary Photographic Series.
Fishermen at Sea.	Uncoloured reproduction of 'Their Only Harvest' by Hunter, National Gallery, Millbank.
Gipsies.	Uncoloured reproduction of Munnings' 'Epsom Downs', National Gallery, Millbank.
Girl lying on Beach.	Uncoloured reproduction of Degas' 'La Plage', National Gallery, Millbank.
Girl playing Organ.	Coloured reproduction of 'Harmony' by Dicksee, National Gallery, Millbank.
Gleaners.	Coloured reproduction of 'Les Semeuses' by Burnand, published in Bâle.
Guests drinking in Dutch House.	Coloured reproduction of 'Interior of a Dutch House' by Peter de Hooch, National Gallery, Millbank.
Her First Dance.	Uncoloured reproduction of Orchardson's picture, National Gallery, Millbank.
Hoorn Church.	Uncoloured reproduction of picture by Bosboom, National Gallery.
The Horse Fair.	Uncoloured reproduction of picture by Rosa Bonheur, National Gallery.
Joan Crawford.	Photograph of the film star.
Keepers attending to Elephants.	Photograph, entitled 'Elephants' Chiroprody', published by the Zoological Society, London.
Lady Salisbury.	Uncoloured reproduction by Valentine Green, after Reynolds, British Museum, Dept. of Prints.
Laboratory.	Photograph of workers in a physics research laboratory.
Lacrosse.	Photograph of a girls' lacrosse match.
Milking.	Coloured drawing of a man milking a cow.

- Moonrise on the Yare. Uncoloured reproduction of Crome's picture, National Gallery.
- Mother and Child. A magazine photograph of a domestic scene.
- Release of wounded Prisoner. Coloured reproduction of Millais' 'The Order of Release', National Gallery.
- St. Joan. Coloured reproduction of Ingres' 'Jeanne d'Arc', Musée de Louvre, Paris.
- Serving Maid. Coloured reproduction of 'Das Schokoladenmädchen' by Liotard, published in Dresden.
- Shepherd with Flocks. Photograph.
- Ski-ing. Photograph of snow-covered valley with ski-ers.
- Suggia. Coloured reproduction of Augustus John's 'Madame Suggia', National Gallery.
- Telescope. Photograph entitled 'At work in Greenwich Observatory'.
- Trial Gallop. Coloured postcard from Raphael Tuck and Sons, Horse-racing series.
- The Vigil. Coloured reproduction of picture by Pettie, National Gallery.
- Washing Day. Uncoloured reproduction of Augustus John's picture, National Gallery.
- Woman making Bread. Coloured reproduction of Vermeer's picture, 'Die Küchenmaid', Amsterdam, Rijksmuseum.
- Woman reading. Uncoloured reproduction of 'The Artist's Wife', by Lamb, National Gallery.
- Women praying. Uncoloured reproduction of 'Femmes en prière' by Legros, National Gallery.
- Wreck of Explorers. Coloured postcard from Raphael Tuck and Sons called 'Our first footing in the Bermudas'.

APPENDIX III

LIST OF SERIES OF PAMPHLETS ENTITLED 'CONCERNING CHILDREN',
PUBLISHED BY THE UNIVERSITY OF LONDON INSTITUTE OF
EDUCATION AND THE HOME AND SCHOOL COUNCIL OF GREAT
BRITAIN. PRICE 3*d*.

1. Dr. Flora Shepherd, *Weaning*.
2. Miss Mary V. Gutteridge, *Concentration in Young Children*.
3. Dr. Susan Isaacs, *The First Two Years*.
4. G. R. Swaine, *School Reports*.
5. Dr. Sybille Yates, *Friendships in Adolescence*.
6. Miss Frances Roe, *The Beginnings of Reading and Writing*.
7. Dr. Flora Shepherd, *The Baby who does not Conform to Rules*.
8. Dr. Sybille Yates, *Independence in Adolescence*.
9. Dr. Ruth Griffiths, *Imagination and Play in Children*.
10. Miss E. R. Boyce, *Play in the Infant School*.

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